

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

SOVEREIGN PEAK VENTURES, LLC,

*Plaintiff,*

v.

LG ELECTRONICS, INC. and LG  
ELECTRONICS U.S.A., INC.,

*Defendants.*

Civil Action No. 2:20-CV-00108-JRG

JURY TRIAL DEMANDED

**DEFENDANTS' ANSWER TO PLAINTIFF'S  
AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Defendants LG Electronics Inc. ("LG KR") and LG Electronics U.S.A., Inc. ("LG USA") (collectively, "Defendants") by and through their undersigned counsel of record and for their Answer to the Amended Complaint of Plaintiff Sovereign Peak Ventures, LLC ("Sovereign" or "Plaintiff") herein state as follows:

**THE PARTIES**

1. Sovereign Peak Ventures, LLC is a Texas limited liability company, located at 1400 Preston Rd, Suite 289, Plano, TX 75093.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 1 and therefore deny them.

2. Upon information and belief, LG KR is a multinational corporation organized under the laws of Korea, with its principal place of business located at LG Twin Towers, 128 Yeoui- daero, Yeongdungpo-gu, Seoul 150-721, Republic of Korea.

**ANSWER:** Admitted.

3. Upon information and belief, LG USA is a corporation organized under the laws of the State of Delaware, with regular and established places of business in Texas at least at 21251- 2155 Eagle Parkway, Fort Worth, Texas 76177; 14901 Beach St, Fort Worth, TX 76177; and 9420 Research Blvd, Austin, Texas 78759. LG USA has at least one regular and established places of business in this District.

**ANSWER:** Defendants admit that LG USA is a corporation organized under the laws of the State of Delaware. Defendants otherwise deny the allegations in Paragraph 3.

4. Upon information and belief, LG KR was spun off from its predecessor LG Electronics Investment Ltd. in 2002. LG and its subsidiaries are made up of five business segments: Home Appliance & Air Solutions, Home Entertainment, Mobile Communications, Vehicle component Solutions and Business Solutions. The Mobile Communications segment of LG “manufactures and sells mobile communication equipment,” including importing, distributing, and selling mobile phones in the U.S. *See Consolidated Interim Financial Statements*, LG ELECTRONICS, INC. (September 20, 2019), at p. 9, available at [https://www.lg.com/global/pdf/ir\\_report/LGE\\_19%203Q\\_consolidated\\_f\\_signed.pdf](https://www.lg.com/global/pdf/ir_report/LGE_19%203Q_consolidated_f_signed.pdf). LG is a publicly traded company and is listed on the Korea stock exchange.

**ANSWER:** Defendants admit that LG KR was spun off from LG Electronics Investment Ltd. on April 1, 2002. Defendants also admit that LG KR has subsidiaries that operate in multiple business segments. Defendants also admit that LG KR is a publicly traded company and is listed on the Korea stock exchange. Defendants also admit that the cited document, [https://www.lg.com/global/pdf/ir\\_report/LGE\\_19%203Q\\_consolidated\\_f\\_signed.pdf](https://www.lg.com/global/pdf/ir_report/LGE_19%203Q_consolidated_f_signed.pdf), speaks for itself. To the extent the allegations of Paragraph 4 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that

document. Defendants otherwise deny the allegations in Paragraph 4.

5. LG KR maintains a corporate presence in the United States via at least its wholly-owned, U.S.-based sales subsidiary LG USA, which is organized under the laws of Delaware with its principal place of business located at 1000 Sylvan Avenue, Englewood Cliffs, NJ, 07632, USA. Upon information and belief, LG USA also owns and controls LG Electronics Alabama, Inc. (an Alabama corporation) and LG Electronics Mobilecomm USA, Inc. (a California corporation, referred to herein as “LG Mobilecomm”). In 2018, LG Mobilecomm was merged into LG USA.

**ANSWER:** Defendants admit that LG USA is a wholly-owned, U.S.-based subsidiary of LG KR. Defendants also admit that LG USA is organized under the laws of Delaware. Defendants also admit that LG Electronics MobileComm U.S.A., Inc. merged with LG USA in 2018. Defendants otherwise deny the allegations in Paragraph 5.

6. Upon information and belief, LG KR and its U.S.-based subsidiaries (which act as part of a global network of overseas sales and manufacturing subsidiaries on behalf of LG) have operated as agents of one another and vicariously as parts of the same business group to work in concert together and enter into agreements that are nearer than arm’s length. For example, LG KR, alone and via at least LG USA’s activities, conducts business in the United States, including importing, distributing, and selling mobile phones that incorporate devices, systems, and processes that infringe the Asserted Patents in Texas and this judicial district. *See Trois v. Apple Tree Auction Center, Inc.*, 882 F.3d 485, 490 (5th Cir. 2018) (“A defendant may be subject to personal jurisdiction because of the activities of its agent within the forum state....”); *see also Cephalon, Inc. v. Watson Pharmaceuticals, Inc.*, 629 F. Supp. 2d 338, 348 (D. Del. 2009) (“The agency theory may be applied not only to parents and subsidiaries, but also to companies that are ‘two arms of the same business group,’ operate in concert with each other, and enter into agreements with each other that are nearer than arm’s length.”).

**ANSWER:** Denied.

7. Through offers to sell, sales, imports, distributions, and other related agreements to transfer ownership of LG's mobile phones with distributors and customers operating in and maintaining a significant business presence in the U.S. and/or its U.S. subsidiary LG USA, LG does business in the U.S., the state of Texas, and in the Eastern District of Texas.

**ANSWER:** Defendants admit that LG USA conducts business in the United States, including in the state of Texas. Defendants otherwise deny the allegations in Paragraph 7.

**JURISDICTION AND VENUE**

8. This action arises under the patent laws of the United States, namely 35 U.S.C. §§ 271, 281, and 284-285, among others.

**ANSWER:** Defendants admit that this action purportedly arises under the patent laws of the United States.

9. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

**ANSWER:** Paragraph 9 contains legal conclusions to which no response is required. To the extent a response is required, Defendants admit that subject matter jurisdiction is proper in this Court pursuant to 28 U.S.C. §§ 1331 and 1338(a).

10. Upon information and belief, LG KR is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this State and judicial district, including: (A) at least part of its infringing activities alleged herein; and (B) regularly doing or soliciting business, engaging in other persistent conduct, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to Texas residents vicariously through and/or in concert with its alter egos, intermediaries, agents, distributors, importers, customers, subsidiaries, and/or consumers. For

example, LG has “operations in more than 100 locations around the world” in a group made up of 134 subsidiaries (among other associates and joint ventures), including those subsidiaries having a significant business presence in the U.S. *See Company Information*, LG ELECTRONICS, INC., <https://www.lg.com/global/investor-relations-company-info> (last visited Feb. 27, 2020).

**ANSWER:** Paragraph 10 contains legal conclusions to which no response is required. To the extent a response is required, for purposes of this action, LG KR does not contest personal jurisdiction in this lawsuit. The document cited in Paragraph 10 speaks for itself. To the extent the allegations of Paragraph 10 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations in Paragraph 10.

11. This Court has personal jurisdiction over LG KR, directly or through intermediaries, distributors, importers, customers, subsidiaries, and/or consumers including its U.S. based, wholly-owned subsidiary, LG USA. Through direction and control of this subsidiary, LG KR has committed acts of direct and/or indirect patent infringement within Texas, and elsewhere within the United States, giving rise to this action and/or has established minimum contacts with Texas such that personal jurisdiction over LG KR would not offend traditional notions of fair play and substantial justice.

**ANSWER:** Paragraph 11 contains legal conclusions to which no response is required. To the extent a response is required, for purposes of this action, LG KR does not contest personal jurisdiction in this lawsuit. Defendants otherwise deny the allegations in Paragraph 11.

12. LG USA is a wholly owned subsidiary of LG. *See Consolidated Interim Financial Statements*, LG ELECTRONICS, INC. (September 20, 2019), at pp. 16-17, *available at* [https://www.lg.com/global/pdf/ir\\_report/LGE\\_19%203Q\\_consolidated\\_f\\_signed.pdf](https://www.lg.com/global/pdf/ir_report/LGE_19%203Q_consolidated_f_signed.pdf). LG KR describes LG USA’s major business as its “sales of electronic products” in the United States. *Id.* Upon

information and belief, LG KR has a 100% controlling ownership interest in LG USA and maintains more than half of LG USA's voting rights as its basis for control. *Id.* Upon information and belief, LG compensates LG USA for its sales support services in the United States. As such, LG has a direct financial interest in LG USA, and vice versa.

**ANSWER:** Defendants admit that LG USA is a wholly owned subsidiary of LG KR. In addition, the document cited in Paragraph 12 speaks for itself. To the extent the allegations of Paragraph 12 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations in Paragraph 12.

13. With respect to the Asserted Patents, the Accused Products comprise LG mobile phones and devices that have wireless charging capability, such devices include, but are not limited to, the LG G4, LG G6, LG G6+, LG G7, LG G7 One, LG G8, LG G8X, LG G8S, LG V30, LG V30+, LG V30S ThinQ, LG V35 ThinQ, LG V40 ThinQ, LG V50S, LG V50 ThinQ, and LG V50. Upon information and belief, LG KR controls or otherwise directs and authorizes all activities of LG USA, including LG USA's using, offering for sale, selling, and/or importing the Accused Products, their components, and/or products containing the same that incorporate the fundamental technologies covered by the Asserted Patents. LG USA is authorized to import, distribute, sell, or offer for sale the Accused Products on behalf of its controlling parent LG KR. For example, LG KR researches, designs, develops, and manufactures mobile phones and then directs LG USA to import, distribute, offer for sale, and sell the Accused Products in the United States. *See, e.g., United States v. Hui Hsiung*, 778 F.3d 738, 743 (9th Cir. 2015) (finding that the sale of infringing products to third parties rather than for direct import into the U.S. did not "place [defendants'] conduct beyond the reach of United States law [or] escape culpability under the rubric of extraterritoriality"). Furthermore, LG USA also

administers, on behalf of LG, requests for service under and any disputes arising from LG's limited warranty of LG's products sold in the U.S., including in Texas and this judicial district. *See, e.g., User Guide LG G7 ThinQ, LM-G210TM*, LG, pp. 202-204, available at [http://gscs-b2c.lge.com/downloadFile?fileId=EnTAsmzn9Y5\\_WNZqf0T7sQ](http://gscs-b2c.lge.com/downloadFile?fileId=EnTAsmzn9Y5_WNZqf0T7sQ) ("Procedure for Resolving Disputes" under LG's Limited Warranty. Thus, LG USA conducts infringing activities on behalf of LG.

**ANSWER:** Defendants admit that certain of the devices that they sell have wireless charging capability. The document cited in Paragraph 13 speaks for itself. To the extent the allegations of Paragraph 13 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations in Paragraph 13.

14. Upon information and belief, LG USA's corporate presence in the United States gives LG substantially the business advantages that it would have enjoyed if it conducted its business through its own offices or paid agents in the state. Upon information and belief, LG USA is authorized to import, distribute, sell, and offer for sale LG's products, including mobile phones incorporating infringing devices and processes, on behalf of LG KR. For example, LG USA operates within LG's global network of sales subsidiaries in North and South America, Europe, Asia, Africa, and the Middle East. In the U.S., including within the Eastern District of Texas, LG's mobile phones, which incorporate infringing devices and processes, are imported, distributed, offered for sale, and sold.

**ANSWER:** Defendants admit that LG USA or unrelated entities may import, distribute, sell or offer for sale LG products, including mobile phones. Defendants further admit that LG USA imports, sells, and offers for sale LG-branded products in the United States and that such products are sold by third parties within the Eastern District of Texas. Defendants otherwise deny the allegations of Paragraph 14.

15. Via LG's alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers maintaining a business presence, operating in, and/or residing in the U.S., LG's products, including products and processes accused of infringing the Asserted Patents are or have been widely distributed and sold in retail stores, both brick and mortar and online, in Texas including within this judicial district. *See Litecubes, LLC v. Northern Light Products, Inc.*, 523 F.3d 1353, 1369-70 (Fed. Cir. 2008) ("[T]he sale [for purposes of § 271] occurred at the location of the buyer."); *see also Semcon IP Inc. v. Kyocera Corp.*, No. 2:18-cv- 00197-JRG, 2019 WL 1979930, at \*3 (E.D. Tex. May 3, 2019) (denying accused infringer's motion to dismiss because plaintiff sufficiently plead that purchases of infringing products outside of the United States for importation into and sales to end users in the U.S. may constitute an offer to sell under § 271(a)). For example, LG devices are sold to end users by LG's subsidiaries, distributors, and customers, including, but not limited to, LG USA, online and at retail stores located throughout the Eastern District of Texas.

**ANSWER:** Defendants admit that LG-branded products are available and offered for sale in the United States through retail stores and online retailers, including in the Eastern District of Texas. Defendants otherwise deny the allegations in Paragraph 15.

16. Upon information and belief, LG KR has placed and continues to place infringing products and/or products that practice infringing processes into the stream of commerce via established distribution channels comprising at least subsidiaries and distributors, such as LG USA, and customers, with the knowledge and/or intent that those products are and/or will be imported, used, offered for sale, sold, and continue to be sold in the United States and Texas, including in this judicial district. For example, in 2018, LG reported 16,208 billion KRW (about 13.42 billion USD) in world-wide net sales in its Mobile Communications division. *See Consolidated Financial Statements*, LG ELECTRONICS, INC. (December 31, 2018), at p. 58, available at

[https://www.lg.com/global/pdf/ir\\_report/LGE\\_18%204Q\\_consolidated\\_f\\_signed.pdf](https://www.lg.com/global/pdf/ir_report/LGE_18%204Q_consolidated_f_signed.pdf). Of that amount, LG USA (combined with LG Mobilecomm) had 12,184 billion KRW (about 10.09 billion USD) in U.S. sales of LG products and services. *See id.* at p. 24. As a result, LG has, vicariously through and/or in concert with its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers, placed infringing LG devices and related wireless network services into the stream of commerce via established distribution channels with the knowledge and/or intent that those products were sold and continue to be sold in the United States and Texas, including in this judicial district.

**ANSWER:** The document cited in Paragraph 16 speaks for itself. To the extent the allegations of Paragraph 16 seek to paraphrase or characterize the contents of the cited the patent Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations in Paragraph 16.

17. In the alternative, the Court has personal jurisdiction over LG KR under Federal Rule of Civil Procedure 4(k)(2), because the claims for patent infringement in this action arise under federal law, LG KR is not subject to the jurisdiction of the courts of general jurisdiction of any state, and exercising jurisdiction over LG KR is consistent with the U.S. Constitution.

**ANSWER:** Paragraph 17 contains legal conclusions to which no response is required. To the extent a response is required, for purposes of this action, LG KR does not contest personal jurisdiction in this lawsuit.

18. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391 because, among other things, LG KR is not a resident in the United States, and thus may be sued in any judicial district, including this one, pursuant to 28 U.S.C. § 1391(c)(3). *See In re HTC Corp.*, 889 F.3d 1349, 1357 (Fed. Cir. 2018) (“The Court’s recent decision in *TC Heartland* does not alter” the alien-venue rule.).

**ANSWER:** Paragraph 18 contains legal conclusions to which no response is required. To the extent a response is required, for purposes of this action, Defendants deny the allegations in Paragraph 18.

19. On information and belief, LG USA is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this State and judicial district, including: (A) at least part of its own infringing activities alleged herein; and (B) regularly doing or soliciting business, engaging in other persistent conduct, and/or deriving substantial revenue from infringing goods offered for sale, sold, and imported and services provided to Texas residents. LG USA has conducted and regularly conducts business within the United States and this District. LG USA has purposefully availed itself to the privileges of conducting business in the United States, and more specifically in Texas and this District. LG USA has sought protection and benefit from the laws of the State of Texas by placing infringing products into the stream of commerce through an established distribution channel with awareness and/or intent that they will be purchased by consumers in this District.

**ANSWER:** Paragraph 19 contains legal conclusions to which no response is required. To the extent a response is required, for purposes of this action, LG USA does not contest personal jurisdiction in this lawsuit.

20. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391 because, among other things, LG USA has regular and established places of business in this District, including at least 21251-2155 Eagle Parkway, Fort Worth, Texas 76177 and 14901 Beach St, Fort Worth, TX 76177.

**ANSWER:** Paragraph 20 contains legal conclusions to which no response is required. To the extent a response is required, Defendants deny the allegations in Paragraph 20. Specifically, pursuant to Fed. R. Civ. P. 12(b)(3), Defendants object to venue as improper in this judicial district under 28

U.S.C. § 1400(b), because LG USA is not incorporated in the State of Texas, and LG USA does not have a regular and established place of business in this judicial district.

**THE ASSERTED PATENTS AND TECHNOLOGY**

21. The Asserted Patents were invented by employees of Panasonic Corporation (“Panasonic”). Founded in 1918, Panasonic has been at the forefront of the electronics industry for over a century. Panasonic made numerous innovations in the home appliance, battery, mobile phone, and television industries. Indeed, Panasonic’s invention of the “Paper Battery” in 1979 is widely credited as enabling the compact electronics of today. In 1991, Panasonic released the Mova P, the smallest and lightest mobile phone on the market, which revolutionized the industry by showing the demand for a compact, lightweight device. Panasonic also produced the first wide-format plasma display and developed the first digital television for the U.S. market. Panasonic’s history of innovation is also borne out by its intellectual property. Indeed, a search of the USPTO database where the patent assignee is “Panasonic” yields over 27,000 matches.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 21 and therefore deny them.

22. Upon information and belief, LG derives a significant portion of its revenue from the manufacture and sale of mobile phones and tablets that the Asserted Patents cover.

**ANSWER:** Defendants admit that a portion of the revenue of LG is derived from the manufacture and sale of mobile phones and tablets. Defendants otherwise deny the allegations in Paragraph 22.

23. The Accused Products, such as the LG G7 among other LG mobile phones, provide wireless charging capability.

Android users have been enjoying inductive wireless charging for quite some time now. Here is a list of newer models with wireless charging (Updated February 2019):

- Samsung Galaxy S10, Galaxy S10+ and Galaxy S10e
- Samsung Galaxy Note 9
- Samsung Galaxy S9 and Galaxy S9+
- LG G8 ThinQ, G8s ThinQ and V50 ThinQ
- LG G7 ThinQ and LG V40 ThinQ
- Sony Xperia XZ3 and Sony Xperia XZ2
- Nokia 9 PureView
- Google Pixel 3 and Pixel 3XL
- Huawei Mate 20 Pro
- Xiaomi MI 9 and MI 9 Explorer

<https://www.powermat.com/blog/android-wireless-charging/>

POWER & PERFORMANCE	
**	Wireless charger sold separately.
Battery Capacity	3,000 mAh Non-Removable
Internal Memory	64 GB (49.05 GB usable)***
Platform	Android 9.0 (Pie)
Qualcomm Quick Charge™ 3.0	3
Rated for Hearing Aids	M4, T3
Talk Time	Up to 20 hours (1200 minutes)*
Wireless Charging	With Compatible Dock**

<https://www.lg.com/us/cell-phones/lg-LMG710VM-g7-thinq-verizon>

**ANSWER:** Defendants admit that the LG G7 ThinQ mobile phone includes wireless charging capability. Defendants otherwise deny the allegations in Paragraph 23.

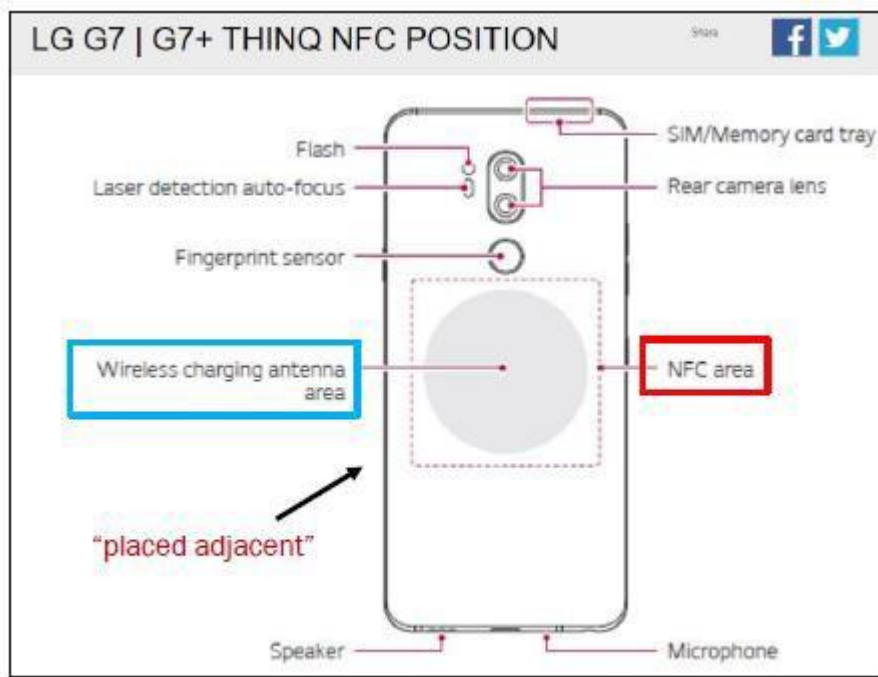
24. The Accused Products each include a wireless charging module that has a substantially planar shape and includes a charging coil.



**ANSWER:** Paragraph 24 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 24.

25. The Accused Products' wireless charging modules include a communication coil (e.g., an NFC antenna/area) placed adjacent to the charging coil.

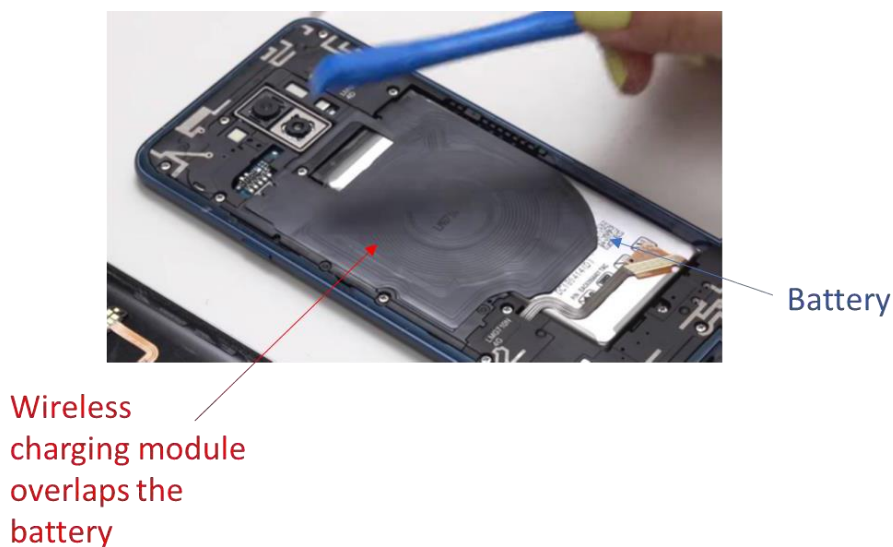


[https://www.lg.com/hk\\_en/nfc/lg-g7](https://www.lg.com/hk_en/nfc/lg-g7)

**ANSWER:** Paragraph 25 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 25.

26. The Accused Products also each include a substantially planar shaped battery pack and a circuit board substrate. For example, the wireless charging module of the LG G7 overlaps with the battery pack.



**ANSWER:** Paragraph 26 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 26.

27. The circuit boards in the Accused Products does not overlap the battery pack:

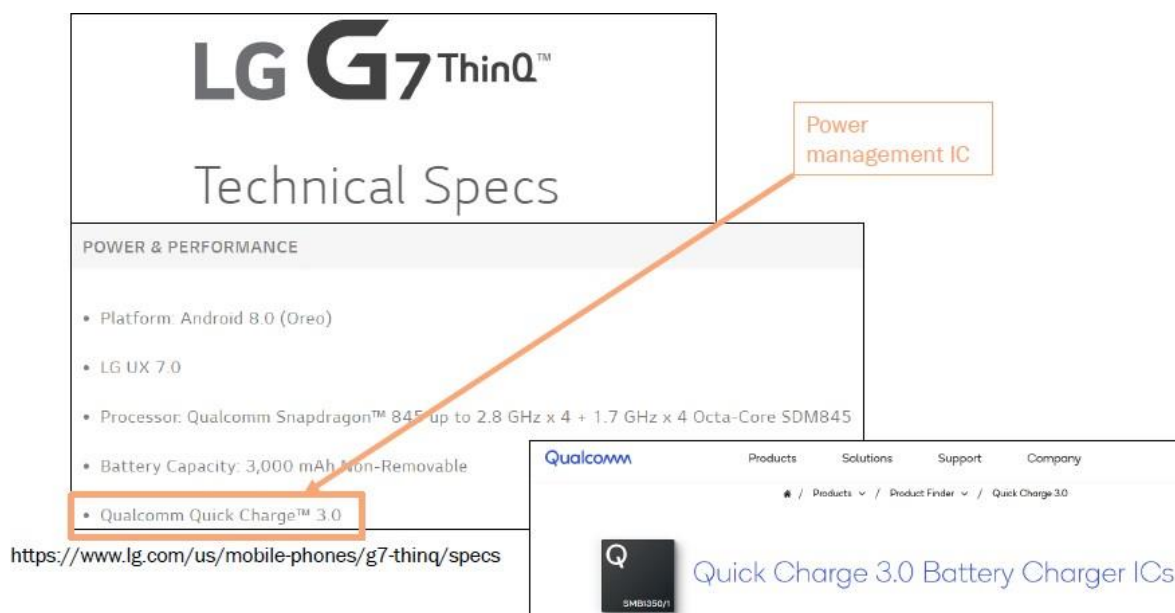


**ANSWER:** Paragraph 27 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 27.

28. The Accused Products each includes a Qualcomm power management IC that functions

as a power receiver circuit to wirelessly charge a battery.



**ANSWER:** Paragraph 28 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 28.

29. The Accused Products' wireless charging modules, which provide a noncontact connector apparatus, are connected to the respective power receiving circuit.



**ANSWER:** Paragraph 29 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 29

30. A receiving coil of the noncontact connector apparatus provides a charging coil so that it is adjacent to a transmitter coil of a wireless charger. The receiver coil (e.g., the charging coil) is electromagnetically coupled to the transmitter coil, when the charging coil is adjacent to the transmitter coil.



**ANSWER:** Paragraph 30 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 30.

### **COUNT I**

(INFRINGEMENT OF U.S. PATENT NO. 9,935,481)

31. Plaintiff incorporates paragraphs 1 through 30 herein by reference.

**ANSWER:** Defendants repeat and reallege their answers to Paragraphs 1 through 30 of the Amended Complaint.

32. SPV is the assignee of the '481 patent, entitled "Mobile Terminal Including Wireless Charging Module and Battery Pack," with ownership of all substantial rights in the '481 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

**ANSWER:** Defendants admit that U.S. Patent No. 9,935,481 ("the '481 patent") is titled "Mobile Terminal Including Wireless Charging Module and Battery Back." Defendants lack knowledge or information sufficient to form a belief as to the truth of the remaining allegations set forth in Paragraph 32 and therefore deny them.

33. The '481 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '481 patent issued from U.S. Patent Application No. 14/376,574.

**ANSWER:** Defendants admit that the '481 patent issued from U.S. Patent Application No. 14/376,574. Defendants otherwise deny the allegations of Paragraph 33.

34. LG has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '481 patent in this judicial district and elsewhere in Texas and the United States.

**ANSWER:** Denied.

35. Upon information and belief, LG designs, develops, manufactures, assembles and markets mobile phones and devices configured to connect to wireless cellular networks. *See Cell Phones*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones> (last visited Mar. 3, 2020) (scroll to “Shop by Carrier/Network” heading). LG’s mobile phones are further configured with customer-desired features such as advanced image processing, wireless charging, AI engines, and multimedia capabilities, including audio playback. *See, e.g., LG V40 ThinQ™ Verizon Wireless*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones/lg-LM-V405UAB-verizon-v40> (last visited Mar. 5, 2020) (describing the features of the LG V40 Thin Q).

**ANSWER:** Defendants admit that they design, develop, manufacture, assemble, and/or market mobile phones and devices configured to connect to wireless cellular networks. Defendants admit that certain of their mobile phones and devices include features such as advanced image processing, wireless charging AI engines, and/or multimedia capabilities, including audio playback. In addition, the document cited in Paragraph 35 speaks for itself. To the extent the allegations of Paragraph 35 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations of

Paragraph 35.

36. LG directly infringes the '481 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the '481 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, LG sells and makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '481 patent. *See, e.g., Lake Cherokee Hard Drive Techs., LLC v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, LG directly infringes the '481 patent through its direct involvement in the activities of its subsidiaries, including LG USA, including by selling and offering for sale the Accused Products directly to LG USA and importing the Accused Products into the United States for LG USA. Upon information and belief, LG USA conducts activities that constitute direct infringement of the '481 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. For example, and upon information and belief, LG offers for sale, sells, and imports the Accused Products within the U.S. to, for example, its distributors, customers, subsidiaries, importers, and/or consumers. Further, LG is vicariously liable for this infringing conduct of LG USA (under both the alter ego and agency theories) because, as an example and upon information and belief, LG and LG USA are essentially the same company, and LG has the right and ability to control LG USA's infringing acts and receives a direct financial benefit from LG USA's infringement.

**ANSWER:** Denied.

37. The Accused Products infringe the '481 patent including, for example, claim 1. The Accused Products support Qi-compliant wireless charging capability. The Accused Products are mobile terminals. For example, the LG G7 is a mobile phone.

**ANSWER:** Defendants admit that the LG G7 is a mobile phone. Otherwise, Paragraph 37 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 37.

38. The Accused Products include a wireless charging module including a charging coil formed of a wound conducting wire and a communication coil placed adjacent to the charging coil, the wireless charging module having a substantially planar shape, wherein a distance between the communication coil and the charging coil is non-uniform. The Accused Products support wireless charging according to the Qi wireless charging standard. For example, the G7 includes a wireless charging module (e.g., the power receiver) including a charging coil. The wireless charging module has a substantially planar shape. The charging coil is formed of a wound conducting wire. The wireless charging module of the LG G7 includes a communication coil (e.g., an NFC antenna/area), which is placed adjacent to the charging coil. The distance between the communication coil and charging coil is non-uniform.

**ANSWER:** Paragraph 38 contains legal conclusions to which no response is required. Defendants deny the remaining allegations in Paragraph 38.

39. The Accused Products comprise a battery pack having a substantially planar shape and configured to store power from the wireless charging module. The battery pack is configured to store power for the operation of the Accused Products.

**ANSWER:** Paragraph 39 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 39.

40. The Accused Products comprise a circuit board substrate configured to control operation of the mobile terminal, wherein the wireless charging module overlaps with at least one of the circuit board substrate and the battery pack, and the circuit board substrate does not overlap with the battery pack. The wireless charging module overlaps with the battery pack, and its circuit board does not overlap the battery pack.



**ANSWER:** Paragraph 40 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 40.

41. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 41 and therefore deny them.

42. At a minimum, LG has known of the '481 patent at least as early as the service date of the original complaint in this matter on April 16, 2020. Further, on information and belief, LG has

known of the '481 patent at least as early as the filing date of the original complaint. In addition, LG has known about the '481 patent since at least April 14, 2020, when LG received a letter providing notice of its infringement. Further, on information and belief, LG's conduct before the United States Patent and Trademark Office ("USPTO") and foreign offices, suggest that it may have been aware of the '481 patent prior to receiving the letter. For example, in prosecuting U.S. Patent No. 9,553,476, LG disclosed the family associated with the '481 patent to the USPTO.

**ANSWER:** Defendants admit that they became aware of the '481 patent at least as early as April 14, 2020. Defendants otherwise deny the allegations in Paragraph 42.

43. Upon information and belief, since at least the above-mentioned date when LG was on notice of its infringement, LG has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '481 patent to directly infringe one or more claims of the '481 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, LG does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '481 patent. Upon information and belief, LG intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless charging features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United

States. *See, e.g., Global Network*, LG ELECTRONICS INC., <http://www.lgnewsroom.com/global-network/north-america/> (last visited Mar. 3, 2020) (stating that “[t]he company has been very active in the [North American] region as an exemplary model of globalization with success in local plants, strategic alliances, and mergers and acquisitions” and listing LG’s U.S.-based subsidiaries).

**ANSWER:** Denied.

44. Upon information and belief, despite having knowledge of the ’481 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’481 patent, LG has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. LG’s infringing activities relative to the ’481 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

**ANSWER:** Denied.

45. SPV has been damaged as a result of LG’s infringing conduct described in this Count. LG is, thus, liable to SPV in an amount that adequately compensates SPV for LG’s infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**ANSWER:** Denied.

## **COUNT II**

(INFRINGEMENT OF U.S. PATENT NO. 9,620,282)

46. Plaintiff incorporates paragraphs 1 through 45 herein by reference.

**ANSWER:** Defendants repeat and reallege their answers to Paragraphs 1 through 45 of the Amended Complaint.

47. SPV is the assignee of the '282 patent, entitled “Noncontact Connector Apparatus and System Using Inductive Coupling Between Coils,” with ownership of all substantial rights in the '282 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

**ANSWER:** Defendants admit that U.S. Patent No. 9,620,282 (“the '282 patent”) is titled “Noncontact Connector Apparatus and System Using Inductive Coupling Between Coils.” Defendants lack knowledge or information sufficient to form a belief as to the truth of the remaining allegations set forth in Paragraph 47 and therefore deny them.

48. The '282 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '282 patent issued from U.S. Patent Application No. 13/983,617.

**ANSWER:** Defendants admit that the '282 patent issued from U.S. Patent Application No. 13/983,617. Defendants otherwise deny the allegations of Paragraph 48.

49. LG has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '282 patent in this judicial district and elsewhere in Texas and the United States.

**ANSWER:** Denied.

50. Upon information and belief, LG designs, develops, manufactures, assembles and markets mobile phones and devices configured to connect to wireless cellular networks. *See Cell Phones*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones> (last visited Mar. 3, 2020) (scroll to “Shop by Carrier/Network” heading). LG’s mobile phones are further configured with customer-desired features such as advanced image processing, wireless charging, AI engines, and multimedia capabilities, including audio playback. *See, e.g., LG V40 ThinQ™ Verizon Wireless*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones/lg-LM-V405UAB-verizon-v40> (last

visited Mar. 5, 2020) (describing the features of the LG V40 Thin Q).

**ANSWER:** Defendants admit that they design, develop, manufacture, assemble, and/or market mobile phones and devices configured to connect to wireless cellular networks. Defendants admit that certain of their mobile phones and devices include features such as advanced image processing, wireless charging AI engines, and/or multimedia capabilities, including audio playback. In addition, the document cited in Paragraph 50 speaks for itself. To the extent the allegations of Paragraph 50 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations of Paragraph 50.

51. LG directly infringes the '282 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the '282 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, LG sells and makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '282 patent. *See, e.g., Lake Cherokee Hard Drive Techs., LLC v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, LG directly infringes the '282 patent through its direct involvement in the activities of its subsidiaries, including LG USA, including by selling and offering for sale the Accused Products directly to LG USA and importing the Accused Products into the United States for LG USA. Upon information and belief, LG USA conducts activities that constitute direct

infringement of the '282 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. For example, and upon information and belief, LG offers for sale, sells, and imports the Accused Products within the U.S. to, for example, its distributors, customers, subsidiaries, importers, and/or consumers. Further, LG is vicariously liable for this infringing conduct of LG USA (under both the alter ego and agency theories) because, as an example and upon information and belief, LG and LG USA are essentially the same company, and LG has the right and ability to control LG USA's infringing acts and receives a direct financial benefit from LG USA's infringement.

**ANSWER:** Denied.

52. The Accused Products infringe the '282 patent including, at least, claim 10. The Accused Products include mobile phones and devices that have wireless charging capability, including, but not limited to, the LG G7. Those Accused Products comprise the power transfer apparatus of claim 10. For example, the Accused Products, including the LG G7, wirelessly transfers power for charging.

**ANSWER:** Denied.

53. The Accused Products include a power receiver circuit. For example, the LG G7 includes a Qualcomm power management IC that functions as a power receiver circuit to charge the battery.

**ANSWER:** Defendants admit that the LG G7 includes a Qualcomm power management IC. Otherwise, Paragraph 53 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 53.

54. The Accused Products comprise a noncontact connector apparatus connected to the power receiver circuit. For example, the wireless charging module is connected to the power receiving circuit via contacts.

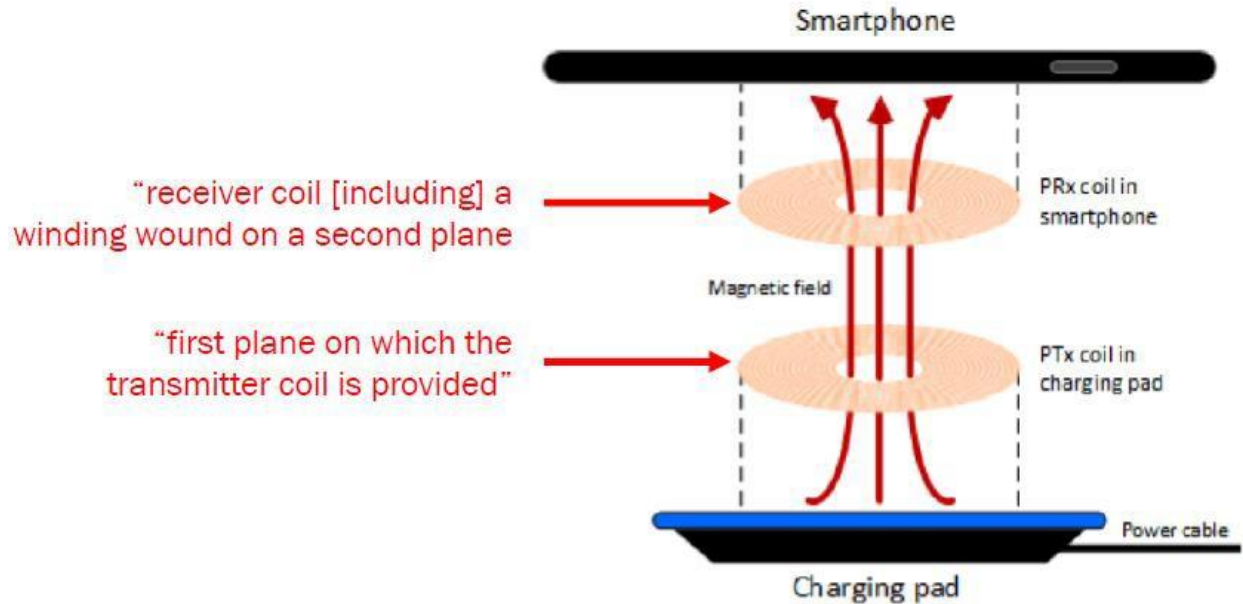
**ANSWER:** Paragraph 54 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 54.

55. In the Accused Products, the noncontact connector apparatus comprises a receiver coil that is provided to be adjacent, so as to be electromagnetically coupled, to a transmitter coil. For example, the noncontact charging module comprises a receiver coil that is electromagnetically coupled to a transmitter coil when the phone is placed onto a wireless charging pad. The receiver coil is provided so that it is adjacent to a transmitter coil so as to be electronically coupled.



**ANSWER:** Paragraph 55 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 55.

56. In the Accused Products, the receiver coil is configured to include a winding wound on a second plane that is opposed to be adjacent to the first plane on which the transmitter coil is provided. For example, the receiver coil in the Accused Products includes a winding wound on a second plane opposed to be adjacent to a first plane on which the transmitter coil is provided.



**ANSWER:** Paragraph 56 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 56.

57. In the Accused Products, the noncontact connector apparatus comprises: a second magnetic body provided between the first plane and the second plane, the second magnetic body being provided to be adjacent, so as to be electromagnetically coupled, to the receiver coil and to cover at least one part of a region in which at least the winding of the receiver coil exists. For example, the Accused Products have a wireless charging module that has a second magnetic body (e.g. an insulating sheet). The insulating sheet is adjacent and electromagnetically coupled to the phone's receiving coil and covers at least part of the coil winding. One side of the insulating sheet is provided between a second plane (on which the receiving coil is wound) and a first plane (on which the transmitter coil is provided).

**ANSWER:** Paragraph 57 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 57.

58. In the Accused Products, the noncontact connector comprises a coupling coefficient

between the transmitter coil and the receiver coil is set to be decreased by increasing the self-inductance of each of the transmitter coil and the receiver coil so that a frequency characteristic of transmission efficiency from the transmitter coil to the receiver coil changes from a double-peaked narrow-band characteristic to a single-peaked wide-band characteristic. For example, in a Qi compliant coil, such as the LG G7 receiver coil, self-inductance will increase due to existence of a magnetic material. A coupling coefficient ( $k$ ) between the transmitter coil and the receiver coil will be set to be decreased according to a mathematical relationship between the mutual inductance between the transmitter and receiver coil and the self-inductance of the transmitter and self-inductance of the receiver coil. A single-peaked wide-band characteristic is achieved by lowering coupling coefficient ( $k$ ) by increasing self-inductances of each of the transmitter coil and receiver coil.

**ANSWER:** Defendants admit that the LG G7 is Qi compliant. Otherwise, Paragraph 58 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 58.

59. In the Accused Products, the noncontact connector comprises a center frequency of the double-peaked narrow-band characteristic is lower than a center frequency of the single-peaked wide-band characteristic. For example, the frequency characteristic of transmission efficiency from the transmitter coil has a center frequency of the double-peaked narrow-band characteristic that is lower than a center frequency of the single-peaked wide-band characteristic.

**ANSWER:** Paragraph 59 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 59.

60. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth

of the allegations set forth in Paragraph 60 and therefore deny them.

61. At a minimum, LG has known of the '282 patent at least as early as the service date of the original complaint in this matter on April 16, 2020. Further, on information and belief, LG has known of the '282 patent at least as early as the filing date of the original complaint. In addition, LG has known about the '282 patent since at least April 14, 2020, when LG received a letter providing notice of its infringement.

**ANSWER:** Defendants admit that they became aware of the '282 patent at least as early as April 14, 2020. Defendants otherwise deny the allegations in Paragraph 61.

62. Upon information and belief, since at least the above-mentioned date when LG was on notice of its infringement, LG has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '282 patent to directly infringe one or more claims of the '282 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, LG does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '282 patent. Upon information and belief, LG intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless charging features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United

States. *See, e.g., Global Network*, LG ELECTRONICS INC., <http://www.lgnewsroom.com/global-network/north-america/> (last visited Mar. 3, 2020) (stating that “[t]he company has been very active in the [North American] region as an exemplary model of globalization with success in local plants, strategic alliances, and mergers and acquisitions” and listing LG’s U.S.-based subsidiaries).

**ANSWER:** Denied.

63. Upon information and belief, despite having knowledge of the ’282 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’282 patent, LG has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. LG’s infringing activities relative to the ’282 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

**ANSWER:** Denied.

64. SPV has been damaged as a result of LG’s infringing conduct described in this Count. LG is, thus, liable to SPV in an amount that adequately compensates SPV for LG’s infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**ANSWER:** Denied.

### **COUNT III**

(INFRINGEMENT OF U.S. PATENT NO. 9,991,735)

65. Plaintiff incorporates paragraphs 1 through 64 herein by reference.

**ANSWER:** Defendants repeat and reallege their answers to Paragraphs 1 through 64 of the Amended Complaint.

66. SPV is the assignee of the '735 patent, entitled "Electronic Device Including Non-Contact Charging Module and Battery," with ownership of all substantial rights in the '735 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

**ANSWER:** Defendants admit that U.S. Patent No. 9,991,735 ("the '735 patent") is titled "Electronic Device Including Non-Contact Charging Module and Battery." Defendants lack knowledge or information sufficient to form a belief as to the truth of the remaining allegations set forth in Paragraph 66 and therefore deny them.

67. The '735 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '735 patent issued from U.S. Patent Application No. 15/886,674.

**ANSWER:** Defendants admit that the '735 patent issued from U.S. Patent Application No. 15/886,674. Defendants otherwise deny the allegations of Paragraph 67.

68. LG has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '735 patent in this judicial district and elsewhere in Texas and the United States.

**ANSWER:** Denied.

69. Upon information and belief, LG designs, develops, manufactures, assembles and markets mobile phones and devices configured to connect to wireless cellular networks. *See Cell Phones*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones> (last visited Mar. 3, 2020) (scroll to "Shop by Carrier/Network" heading). LG's mobile phones are further configured with customer-desired features such as advanced image processing, wireless charging, AI engines, and multimedia capabilities, including audio playback. *See, e.g., LG V40 ThinQ™ Verizon Wireless*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones/lg-LM-V405UAB-verizon-v40> (last

visited Mar. 5, 2020) (describing the features of the LG V40 Thin Q).

**ANSWER:** Defendants admit that they design, develop, manufacture, assemble, and/or market mobile phones and devices configured to connect to wireless cellular networks. Defendants admit that certain of their mobile phones and devices include features such as advanced image processing, wireless charging AI engines, and/or multimedia capabilities, including audio playback. In addition, the document cited in Paragraph 69 speaks for itself. To the extent the allegations of Paragraph 69 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations of Paragraph 69.

70. LG directly infringes the '735 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the '735 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, LG sells and makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '735 patent. *See, e.g., Lake Cherokee Hard Drive Techs., LLC v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, LG directly infringes the '735 patent through its direct involvement in the activities of its subsidiaries, including LG USA, including by selling and offering for sale the Accused Products directly to LG USA and importing the Accused Products into the United States for LG USA. Upon information and belief, LG USA conducts activities that constitute direct

infringement of the '735 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. For example, and upon information and belief, LG offers for sale, sells, and imports the Accused Products within the U.S. to, for example, its distributors, customers, subsidiaries, importers, and/or consumers. Further, LG is vicariously liable for this infringing conduct of LG USA (under both the alter ego and agency theories) because, as an example and upon information and belief, LG and LG USA are essentially the same company, and LG has the right and ability to control LG USA's infringing acts and receives a direct financial benefit from LG USA's infringement.

**ANSWER:** Denied.

71. The Accused Products infringe the '735 patent including, at least, claim 1. The Accused Products include mobile phones and devices that have wireless charging capability, including, but not limited to, the LG G8. The Accused Products are electronic devices having communication capability. For example, the Accused Products have the ability to communicate with the cellular network.

**ANSWER:** Denied.

72. The Accused products comprise a housing having a generally rectangular shape in a plan view of the housing. For example, the LG G8 shown below has a rectangular shape:



**ANSWER:** Paragraph 72 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 72.

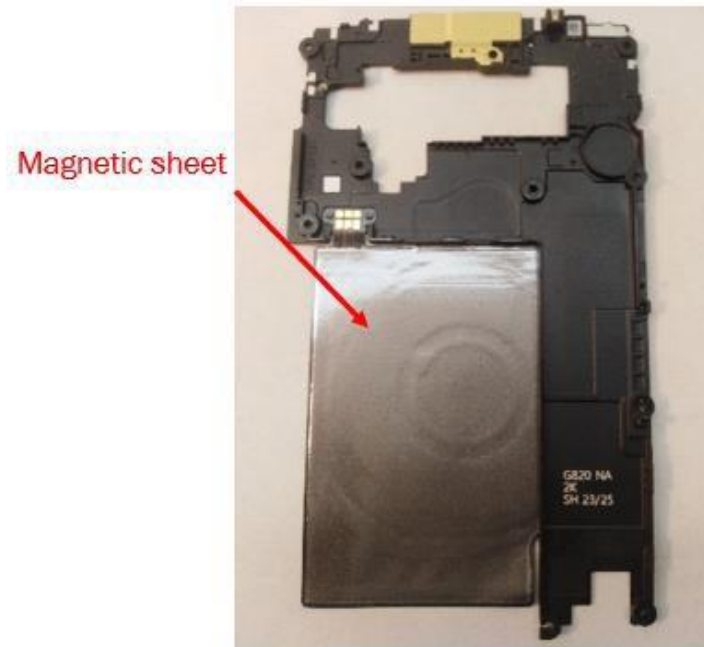
73. The Accused Products comprise a non-contact charging module included in the housing and including a wireless charging coil having a substantially planar shape and formed of a wound electrical wire. For example, the LG G8 includes such a coil:

Wireless charging coil has a substantially planar shape



**ANSWER:** Paragraph 73 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 73.

74. The non-contact charging module included in the housing of the Accused Products further includes a magnetic sheet that overlaps with the wireless charging coil in the plan view of the housing. For example, the magnetic sheet is located opposite the wireless charging coil.



**ANSWER:** Paragraph 74 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 74.

75. The Accused Products comprise a display arranged closer to the magnetic sheet than to the wireless charging coil of the non-contact charging module. The Accused Products, such as the LG G8 are configured such that the magnetic sheet is located between the wireless charging coil and the display. Accordingly, the display is closer to the magnetic sheet than to the wireless charging coil.

**ANSWER:** Paragraph 75 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 75.

76. The Accused Products comprise a battery included in the housing and having a substantially planar shape that overlaps with the wireless charging coil of the non-contact charging module in the plan view of the housing, the battery being configured to receive power from the wireless charging coil of the non-contact charging module. For example, the battery in the LG G8 shown below is included in the housing and has a substantially planar shape that overlaps with the wireless charging

coil of the non-contact charging module in the plan view of the housing. The battery in each of the Accused Products is configured to receive power from wireless charging.



**ANSWER:** Defendants admit that the LG G8 includes a battery. Otherwise, Paragraph 76 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 76.

77. The Accused Products comprise a circuit board included in the housing and arranged to not overlap with the battery in the plan view of the housing. For example, the LG G8 shown below has the circuit board and battery arranged to not overlap:



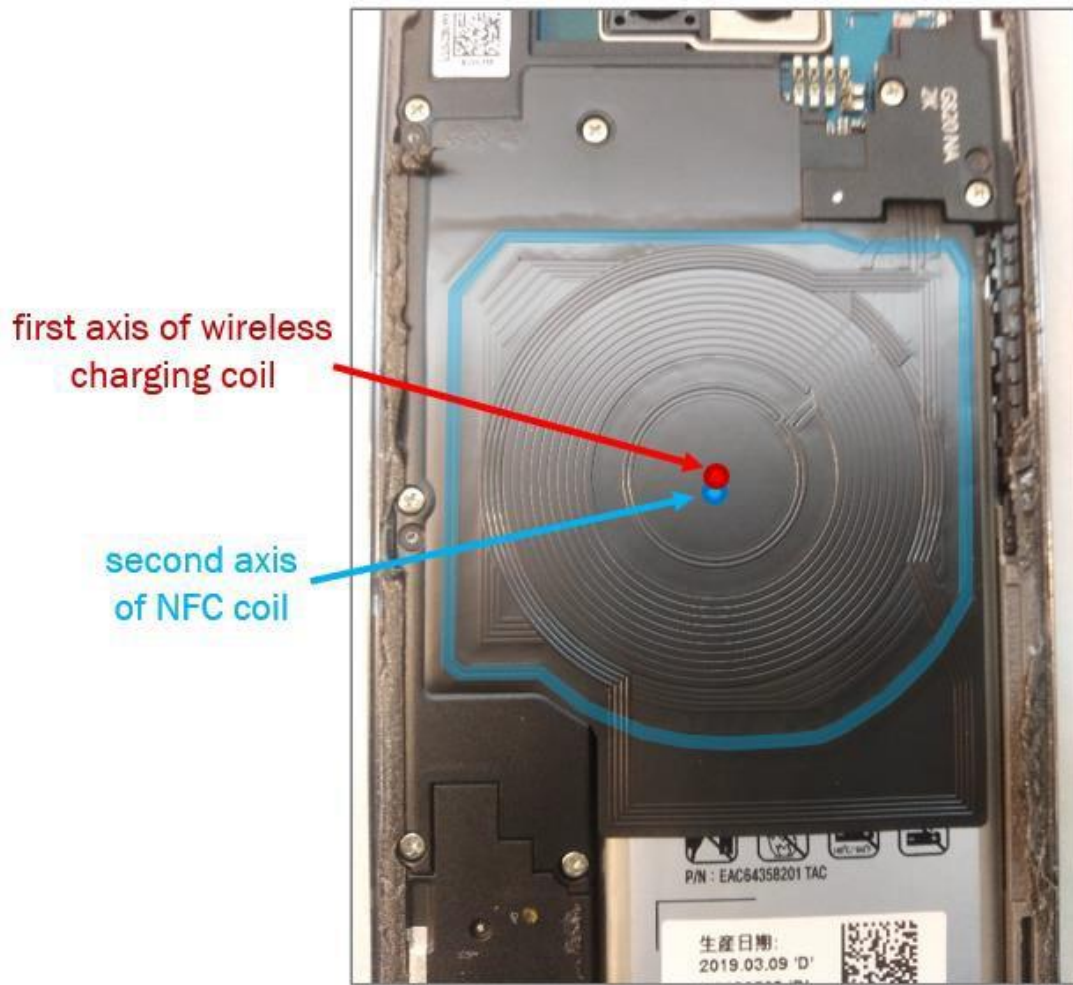
**ANSWER:** Defendants admit that the LG G8 includes a circuit board and a battery. Otherwise, Paragraph 77 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 77.

78. The Accused Products comprise a Near Field Communication (NFC) antenna included in the housing and including an NFC coil formed of a wound electrical wire. For example, the LG G8 shown below includes an NFC antenna, which includes a wound electrical wire NFC coil:



**ANSWER:** Defendants admit that the LG G8 includes an NFC antenna. Otherwise, Paragraph 78 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 78.

79. The Accused Products are configured such that a first axis of the wireless charging coil is different from a second axis of the NFC coil. For example, the z-axis around which the wireless charging coil is wound is different from the z-axis around which the NFC coil is wound for the LG G8, as shown below:



**ANSWER:** Paragraph 79 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 79.

80. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 80 and therefore deny them.

81. At a minimum, LG has known of the '735 patent at least as early as the service date of the original complaint in this matter on April 16, 2020. Further, on information and belief, LG has known of the '735 patent at least as early as the filing date of the original complaint. In addition, LG has

known about the '735 patent since at least April 14, 2020, when LG received a letter providing notice of its infringement. Further, on information and belief, LG's conduct before the United States Patent and Trademark Office ("USPTO") and foreign offices, suggest that it may have been aware of the '735 patent prior to receiving the letter. For example, in prosecuting U.S. Patent No. 10,270,291, LG disclosed the family associated with the '735 patent to the USPTO.

**ANSWER:** Defendants admit that they became aware of the '735 patent at least as early as April 14, 2020. Defendants otherwise deny the allegations in Paragraph 81.

82. Upon information and belief, since at least the above-mentioned date when LG was on notice of its infringement, LG has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '735 patent to directly infringe one or more claims of the '735 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, LG does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '735 patent. Upon information and belief, LG intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless charging features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. *See, e.g., Global Network, LG ELECTRONICS INC.*, <http://www.lgnewsroom.com/global->

network/north-america/ (last visited Mar. 3, 2020) (stating that “[t]he company has been very active in the [North American] region as an exemplary model of globalization with success in local plants, strategic alliances, and mergers and acquisitions” and listing LG’s U.S.-based subsidiaries).

**ANSWER:** Denied.

83. Upon information and belief, despite having knowledge of the ’735 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’735 patent, LG has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. LG’s infringing activities relative to the ’735 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

**ANSWER:** Denied.

84. SPV has been damaged as a result of LG’s infringing conduct described in this Count. LG is, thus, liable to SPV in an amount that adequately compensates SPV for LG’s infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**ANSWER:** Denied.

#### **COUNT IV**

(INFRINGEMENT OF U.S. PATENT NO. 10,044,225)

85. Plaintiff incorporates paragraphs 1 through 84 herein by reference.

**ANSWER:** Defendants repeat and reallege their answers to Paragraphs 1 through 84 of the Amended Complaint.

86. SPV is the assignee of the '225 patent, entitled "Electronic Device Including Non-Contact Charging Module," with ownership of all substantial rights in the '225 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

**ANSWER:** Defendants admit that U.S. Patent No. 10,044,225 ("the '225 patent") is titled "Electronic Device Including Non-Contact Charging Module." Defendants lack knowledge or information sufficient to form a belief as to the truth of the remaining allegations set forth in Paragraph 86 and therefore deny them.

87. The '225 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '225 patent issued from U.S. Patent Application No. 15/883,773.

**ANSWER:** Defendants admit that the '225 patent issued from U.S. Patent Application No. 15/883,773. Defendants otherwise deny the allegations of Paragraph 87.

88. LG has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '225 patent in this judicial district and elsewhere in Texas and the United States.

**ANSWER:** Denied.

89. Upon information and belief, LG designs, develops, manufactures, assembles and markets mobile phones and devices configured to connect to wireless cellular networks. *See Cell Phones*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones> (last visited Mar. 3, 2020) (scroll to "Shop by Carrier/Network" heading). LG's mobile phones are further configured with customer-desired features such as advanced image processing, wireless charging, AI engines, and multimedia capabilities, including audio playback. *See, e.g., LG V40 ThinQ™ Verizon Wireless*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones/lg-LM-V405UAB-verizon-v40> (last visited Mar. 5, 2020) (describing the features of the LG V40 Thin Q).

**ANSWER:** Defendants admit that they design, develop, manufacture, assemble, and/or market mobile phones and devices configured to connect to wireless cellular networks. Defendants admit that certain of their mobile phones and devices include features such as advanced image processing, wireless charging AI engines, and/or multimedia capabilities, including audio playback. In addition, the document cited in Paragraph 89 speaks for itself. To the extent the allegations of Paragraph 89 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations of Paragraph 89.

90. LG directly infringes the '225 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the '225 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, LG sells and makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '225 patent. *See, e.g., Lake Cherokee Hard Drive Techs., LLC v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, LG directly infringes the '225 patent through its direct involvement in the activities of its subsidiaries, including LG USA, including by selling and offering for sale the Accused Products directly to LG USA and importing the Accused Products into the United States for LG USA. Upon information and belief, LG USA conducts activities that constitute direct infringement of the '225 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or

importing those Accused Products. For example, and upon information and belief, LG offers for sale, sells, and imports the Accused Products within the U.S. to, for example, its distributors, customers, subsidiaries, importers, and/or consumers. Further, LG is vicariously liable for this infringing conduct of LG USA (under both the alter ego and agency theories) because, as an example and upon information and belief, LG and LG USA are essentially the same company, and LG has the right and ability to control LG USA's infringing acts and receives a direct financial benefit from LG USA's infringement.

**ANSWER:** Denied.

91. The Accused Products infringe the '225 patent including, at least, claim 1. The Accused Products include mobile phones and devices that have wireless charging capability, including, but not limited to, the LG G8. The Accused Products are electronic devices having communication capability. For example, the Accused Products have the ability to communicate with the cellular network.

**ANSWER:** Denied.

92. The Accused products comprise a housing having a generally rectangular shape in a plan view of the housing. For example, the LG G8 shown below has a rectangular shape:



**ANSWER:** Defendants admit that the LG G8 has a rectangular shape. Otherwise, Paragraph 92 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 92.

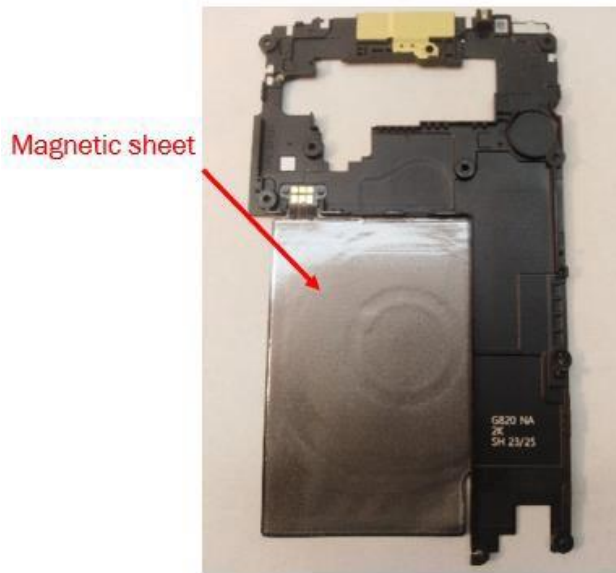
93. The Accused Products comprise a non-contact charging module included in the housing and including a wireless charging coil having a substantially planar shape and formed of a wound electrical wire. For example, the LG G8 includes such a coil:

Wireless charging coil has a substantially planar shape



**ANSWER:** Defendants admit that the LG G8 has a wireless charging coil. Otherwise, Paragraph 93 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 93.

94. The non-contact charging module of the Accused Products further includes a magnetic sheet that overlaps with the wireless charging coil in the plan view of the housing. For example, the magnetic sheet is located opposite the wireless charging coil.



**ANSWER:** Paragraph 94 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 94.

95. The Accused Products comprise a display arranged closer to the magnetic sheet than to the wireless charging coil of the non-contact charging module. The Accused Products, such as the LG G8 are configured such that the magnetic sheet is located between the wireless charging coil and the display. Accordingly, the display is closer to the magnetic sheet than to the wireless charging coil.

**ANSWER:** Paragraph 95 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 95.

96. The Accused Products comprise a battery included in the housing and configured to receive power from the wireless charging coil of the non-contact charging module. For example, the battery in the LG G8 housing is shown below. The battery in each of the Accused Products is configured to receive power from wireless charging.



**ANSWER:** Defendants admit that the LG G8 has a battery. Otherwise, Paragraph 96 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 96.

97. The Accused Products comprise a camera included in the housing. For example, the LG G8 contains multiple cameras, shown below:



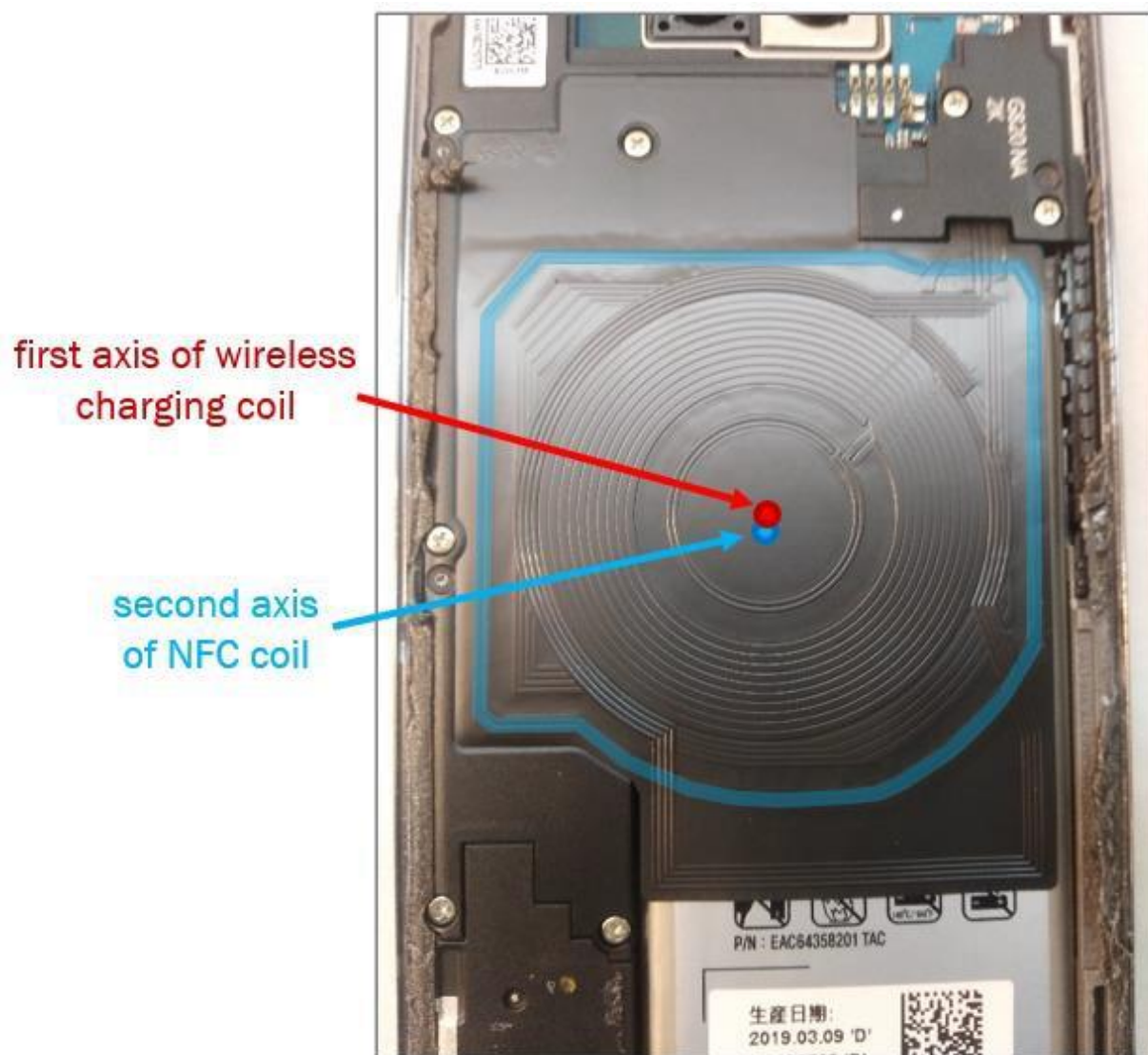
**ANSWER:** Defendants admit that the LG G8 has a camera. Otherwise, Paragraph 97 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 97.

98. The Accused Products comprise a Near Field Communication (NFC) antenna included in the housing and including an NFC coil formed of a wound electrical wire. For example, the LG G8 shown below includes an NFC antenna, which includes a wound electrical wire NFC coil:



**ANSWER:** Defendants admit that the LG G8 has an NFC antenna. Otherwise, Paragraph 98 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 98.

99. The Accused Products are configured such that a first axis of the wireless charging coil is different from a second axis of the NFC coil. For example, the z-axis around which the wireless charging coil is wound is different from the z-axis around which the NFC coil is wound for the LG G8, as shown below:



**ANSWER:** Paragraph 99 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 99.

100. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 100 and therefore deny them.

101. At a minimum, LG has known of the '225 patent at least as early as the service date of

the original complaint in this matter on April 16, 2020. Further, on information and belief, LG has known of the '225 patent at least as early as the filing date of the original complaint. In addition, LG has known about the '225 patent since at least April 14, 2020, when LG received a letter providing notice of its infringement. Further, on information and belief, LG's conduct before the United States Patent and Trademark Office ("USPTO") and foreign offices, suggest that it may have been aware of the '225 patent prior to receiving the letter. For example, in prosecuting U.S. Patent No. 9,553,476, LG disclosed the family associated with the '225 patent to the USPTO.

**ANSWER:** Defendants admit that they became aware of the '225 patent at least as early as April 14, 2020. Defendants otherwise deny the allegations in Paragraph 101.

102. Upon information and belief, since at least the above-mentioned date when LG was on notice of its infringement, LG has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '225 patent to directly infringe one or more claims of the '225 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, LG does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '225 patent. Upon information and belief, LG intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless charging features in the Accused Products, and/or providing

technical support, replacement parts, or services for these products to these purchasers in the United States. *See, e.g., Global Network*, LG ELECTRONICS INC., <http://www.lgnewsroom.com/global-network/north-america/> (last visited Mar. 3, 2020) (stating that “[t]he company has been very active in the [North American] region as an exemplary model of globalization with success in local plants, strategic alliances, and mergers and acquisitions” and listing LG’s U.S.-based subsidiaries).

**ANSWER:** Denied.

103. Upon information and belief, despite having knowledge of the ’225 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’225 patent, LG has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. LG’s infringing activities relative to the ’225 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

**ANSWER:** Denied.

104. SPV has been damaged as a result of LG’s infringing conduct described in this Count. LG is, thus, liable to SPV in an amount that adequately compensates SPV for LG’s infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**ANSWER:** Denied.

### **COUNT V**

(INFRINGEMENT OF U.S. PATENT NO. 10,291,069)

105. Plaintiff incorporates paragraphs 1 through 104 herein by reference.

**ANSWER:** Defendants repeat and reallege their answers to Paragraphs 1 through 104 of the

Amended Complaint.

106. SPV is the assignee of the '069 patent, entitled “Mobile Terminal and Chargeable Communication Module,” with ownership of all substantial rights in the '069 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

**ANSWER:** Defendants admit that U.S. Patent No. 10,291,069 (“the '069 patent”) is titled “Mobile Terminal and Chargeable Communication Module.” Defendants lack knowledge or information sufficient to form a belief as to the truth of the remaining allegations set forth in Paragraph 106 and therefore deny them.

107. The '069 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '069 patent issued from U.S. Patent Application No. 15/480,174.

**ANSWER:** Defendants admit that the '069 patent issued from U.S. Patent Application No. 15/480,174. Defendants deny that the '069 patent is valid and enforceable. Defendants otherwise deny the allegations of Paragraph 107.

108. LG has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '069 patent in this judicial district and elsewhere in Texas and the United States.

**ANSWER:** Denied.

109. Upon information and belief, LG designs, develops, manufactures, assembles and markets mobile phones and devices configured to connect to wireless cellular networks. *See* Cell Phones, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones> (last visited Mar. 3, 2020) (scroll to “Shop by Carrier/Network” heading). LG’s mobile phones are further configured with customer-desired features such as advanced image processing, wireless charging, AI engines, and multimedia capabilities, including audio playback. *See, e.g.*, LG V40 ThinQ™ Verizon Wireless, LG

ELECTRONICS INC., <https://www.lg.com/us/cell-phones/lg-LM-V405UAB-verizon-v40> (last visited Mar. 5, 2020) (describing the features of the LG V40 Thin Q).

**ANSWER:** Defendants admit that they design, develop, manufacture, assemble, and/or market mobile phones and devices configured to connect to wireless cellular networks. Defendants admit that certain of their mobile phones and devices include features such as advanced image processing, wireless charging AI engines, and/or multimedia capabilities, including audio playback. In addition, the document cited in Paragraph 109 speaks for itself. To the extent the allegations of Paragraph 12 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations of Paragraph 109.

110. LG directly infringes the '069 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the '069 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, LG sells and makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '069 patent. *See, e.g., Lake Cherokee Hard Drive Techs., LLC v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, LG directly infringes the '069 patent through its direct involvement in the activities of its subsidiaries, including LG USA, including by selling and offering for sale the Accused Products directly to LG USA and importing the Accused Products into the United

States for LG USA. Upon information and belief, LG USA conducts activities that constitute direct infringement of the '069 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. For example, and upon information and belief, LG offers for sale, sells, and imports the Accused Products within the U.S. to, for example, its distributors, customers, subsidiaries, importers, and/or consumers. Further, LG is vicariously liable for this infringing conduct of LG USA (under both the alter ego and agency theories) because, as an example and upon information and belief, LG and LG USA are essentially the same company, and LG has the right and ability to control LG USA's infringing acts and receives a direct financial benefit from LG USA's infringement.

**ANSWER:** Denied.

111. The Accused Products infringe the '069 patent including, at least, claim 1. The Accused Products include mobile phones and devices that have wireless charging capability, including, but not limited to, the LG G8 and V30. The Accused Products are mobile terminals. For example, the LG G8 and V30 are both cellular phones.

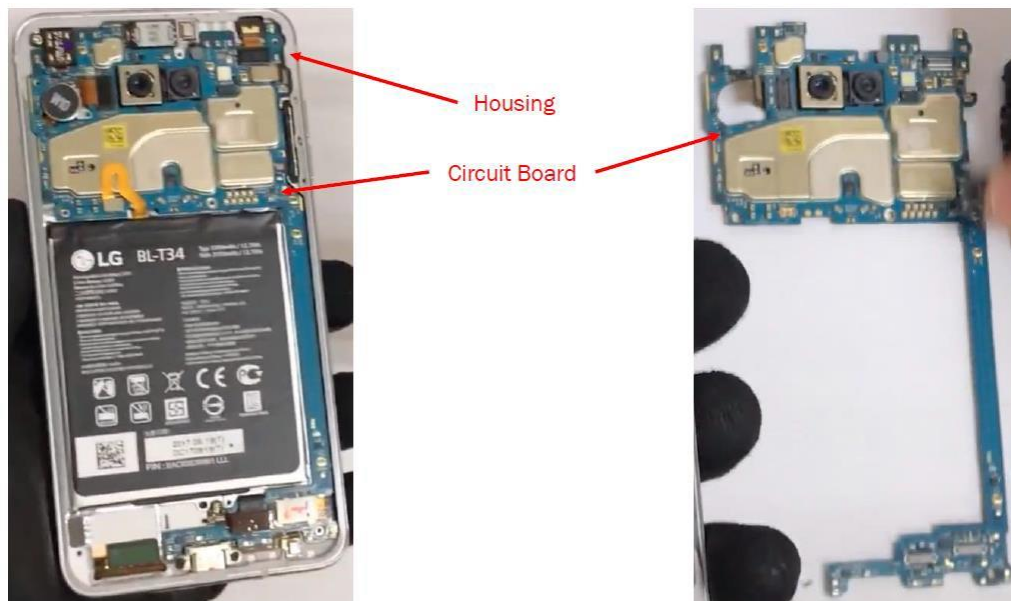
**ANSWER:** Denied.

112. The Accused products comprise a housing. For example, the LG V30 shown below includes a housing that has a rectangular shape:



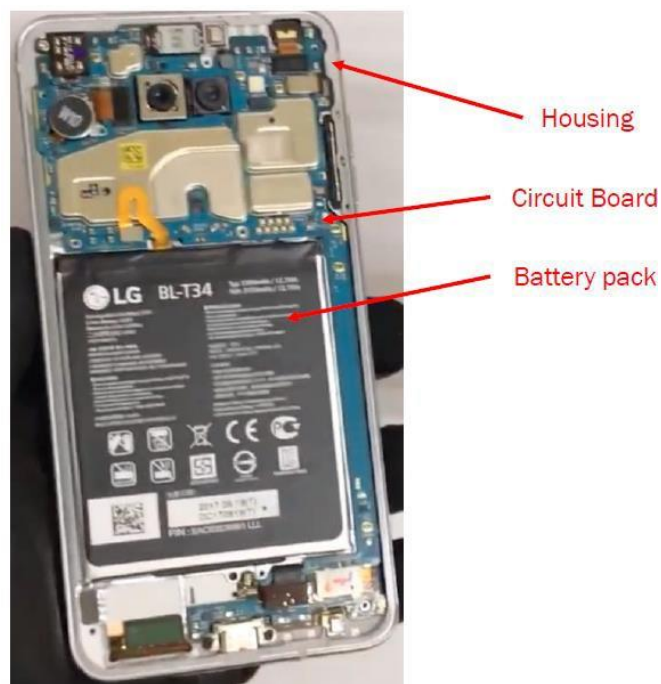
**ANSWER:** Defendants admit that the LG V30 has a rectangular shape. Otherwise, Paragraph 112 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 112.

113. The Accused Products comprise a circuit board included in the housing and having a thickness direction normal to a plane of the circuit board. For example, the circuit board in LG V30 has a thickness direction perpendicular to the surface of the circuit board:



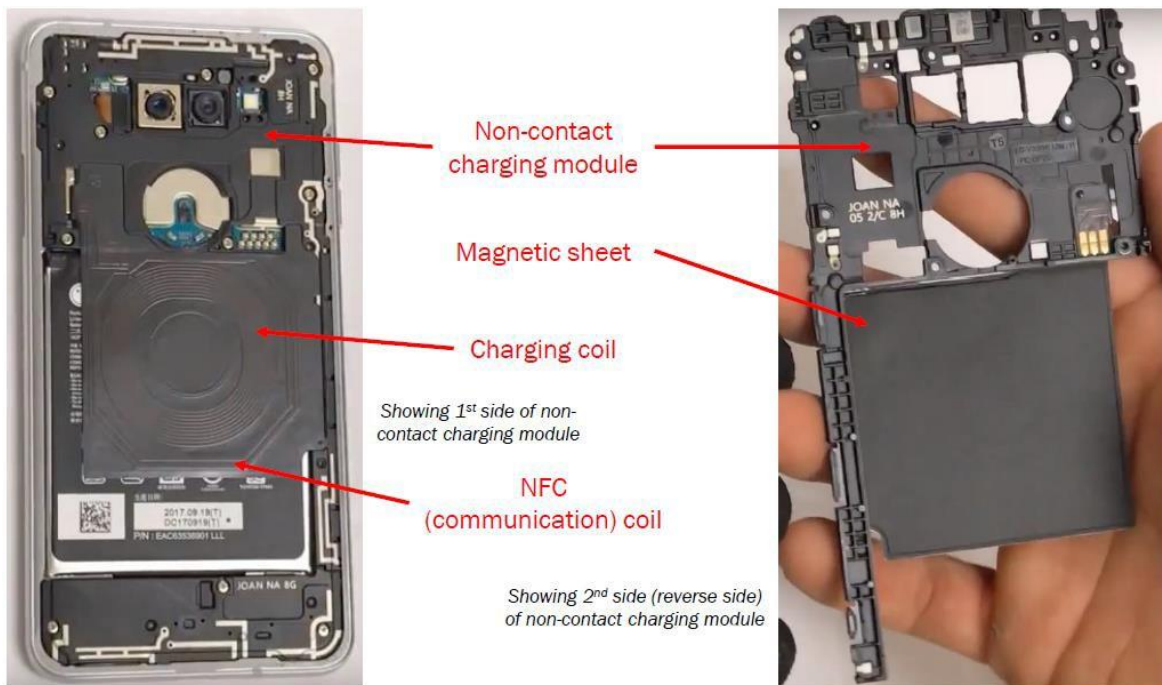
**ANSWER:** Paragraph 113 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 113.

114. The Accused Products comprise a battery pack included in the housing. For example, the LG V30 contains the battery pack shown below:



**ANSWER:** Defendants admit that the LG V30 has a battery. Otherwise, Paragraph 114 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 114.

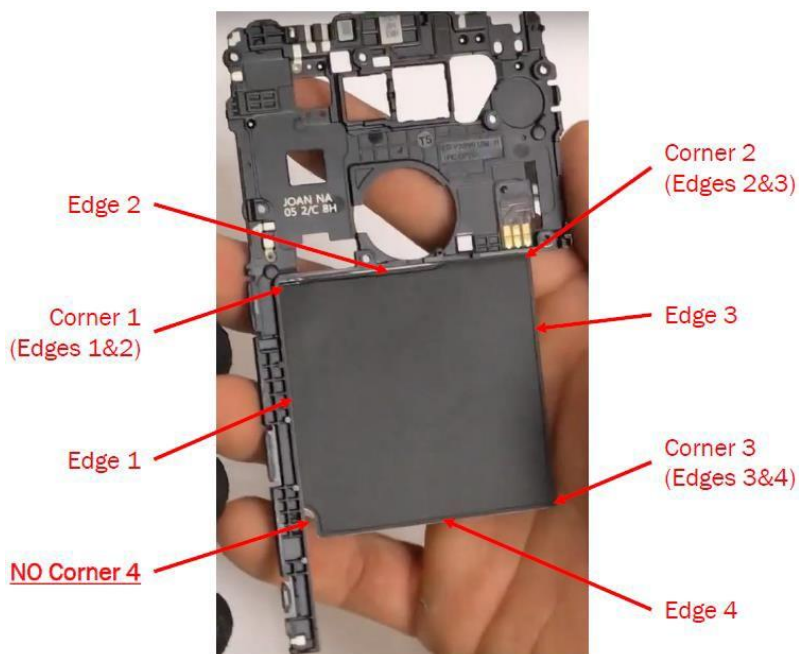
115. The Accused Products comprise a non-contact charging module included in the housing, including a charging coil formed of a wound conducting wire, a communication coil arranged adjacent to the charging coil, and a magnetic sheet on which the charging coil and the communication coil are arranged. For example, the LG V30 comprises a non-contact charging module in the housing that includes a charging coil formed of a wound conducting wire, a communication coil arranged adjacent to the charging coil, and a magnetic sheet on which the charging coil and the communication coil are arranged:



**ANSWER:** Paragraph 115 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 115.

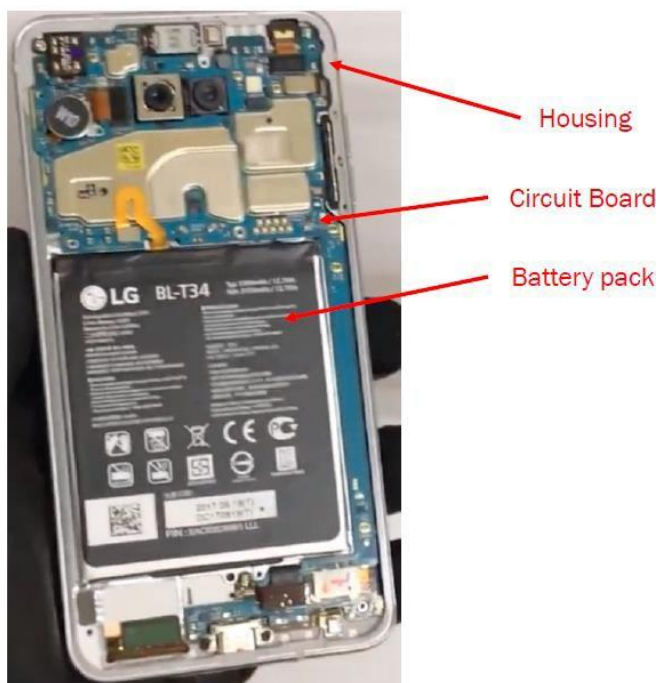
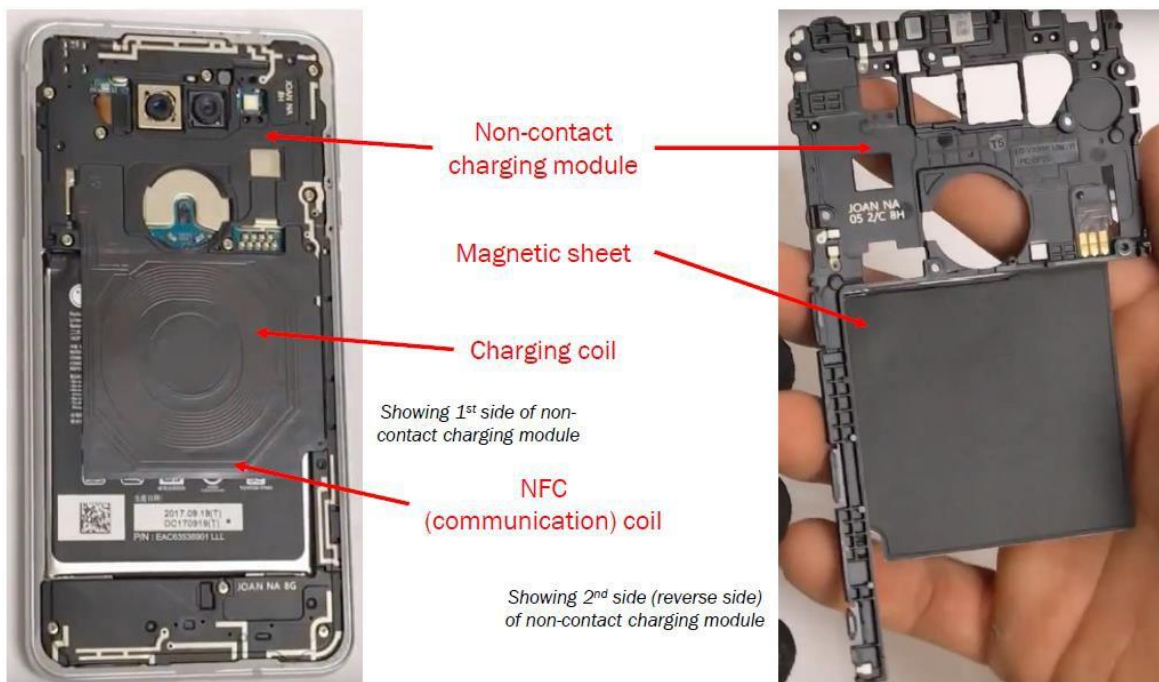
116. Within the Accused Products, the magnetic sheet has four edges that collectively define

a rectangular profile of the magnetic sheet, and at most three pairs of adjacent edges respectively meet to form at most three corners. For example, the LG V30 contains the magnetic sheet shown below:



**ANSWER:** Paragraph 116 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 116.

117. At least of portion of the non-contact charging module in the Accused Products overlaps with the circuit board as viewed in the thickness direction of the circuit board.



**ANSWER:** Paragraph 117 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 117.

118. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 118 and therefore deny them.

119. At a minimum, LG has known of the '069 patent at least as early as the service date of the original complaint in this matter on April 16, 2020. Further, on information and belief, LG has known of the '069 patent at least as early as the filing date of the original complaint. In addition, LG has known about the '069 patent since at least April 14, 2020, when LG received a letter providing notice of its infringement.

**ANSWER:** Defendants admit that they became aware of the '069 patent at least as early as April 14, 2020. Defendants otherwise deny the allegations in Paragraph 119.

120. Upon information and belief, since at least the above-mentioned date when LG was on notice of its infringement, LG has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '069 patent to directly infringe one or more claims of the '069 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, LG does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '069 patent. Upon information and belief, LG intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations,

distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless charging features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. *See, e.g., Global Network, LG ELECTRONICS INC.*, <http://www.lgnewsroom.com/global-network/north-america/> (last visited Mar. 3, 2020) (stating that “[t]he company has been very active in the [North American] region as an exemplary model of globalization with success in local plants, strategic alliances, and mergers and acquisitions” and listing LG’s U.S.-based subsidiaries).

**ANSWER:** Denied.

121. Upon information and belief, despite having knowledge of the ’069 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’069 patent, LG has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. LG’s infringing activities relative to the ’069 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

**ANSWER:** Denied.

122. SPV has been damaged as a result of LG’s infringing conduct described in this Count. LG is, thus, liable to SPV in an amount that adequately compensates SPV for LG’s infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**ANSWER:** Denied.

## **COUNT VI**

(INFRINGEMENT OF U.S. PATENT NO. 10,574,082)

123. Plaintiff incorporates paragraphs 1 through 122 herein by reference.

**ANSWER:** Defendants repeat and reallege their answers to Paragraphs 1 through 122 of the Amended Complaint.

124. SPV is the assignee of the '082 patent, entitled "Electronic Device Including Non-Contact Charging Module and Battery," with ownership of all substantial rights in the '082 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

**ANSWER:** Defendants admit that U.S. Patent No. 10,574,082 ("the '082 patent") is titled "Electronic Device Including Non-Contact Charging Module and Battery." Defendants also admit that the face of the '082 patent identifies "Sovereign Peak Ventures, LLC" as the assignee. Defendants lack knowledge or information sufficient to form a belief as to the truth of the remaining allegations set forth in Paragraph 124 and therefore deny them.

125. The '082 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '082 patent issued from U.S. Patent Application No. 15/955,459.

**ANSWER:** Defendants admit that the '082 patent issued from U.S. Patent Application No. 15/955,459. Defendants otherwise deny the allegations of Paragraph 125.

126. LG has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '082 patent in this judicial district and elsewhere in Texas and the United States.

**ANSWER:** Denied.

127. Upon information and belief, LG designs, develops, manufactures, assembles and markets mobile phones and devices configured to connect to wireless cellular networks. *See Cell Phones*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones> (last visited Mar. 3, 2020)

(scroll to “Shop by Carrier/Network” heading). LG’s mobile phones are further configured with customer-desired features such as advanced image processing, wireless charging, AI engines, and multimedia capabilities, including audio playback. *See, e.g., LG V40 ThinQ™ Verizon Wireless*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones/lg-LM-V405UAB-verizon-v40> (last visited Mar. 5, 2020) (describing the features of the LG V40 Thin Q).

**ANSWER:** Defendants admit that they design, develop, manufacture, assemble, and/or market mobile phones and devices configured to connect to wireless cellular networks. Defendants admit that certain of their mobile phones and devices include features such as advanced image processing, wireless charging AI engines, and/or multimedia capabilities, including audio playback. In addition, the document cited in Paragraph 127 speaks for itself. To the extent the allegations of Paragraph 127 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations of Paragraph 127.

128. LG directly infringes the ’082 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the ’082 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, LG sells and makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the ’082 patent. *See, e.g., Lake Cherokee Hard Drive Techs., LLC v. Marvell Semiconductor, Inc.*, 964 F. Supp.

2d 653, 658 (E.D. Tex. 2013). Furthermore, LG directly infringes the '082 patent through its direct involvement in the activities of its subsidiaries, including LG USA, including by selling and offering for sale the Accused Products directly to LG USA and importing the Accused Products into the United States for LG USA. Upon information and belief, LG USA conducts activities that constitute direct infringement of the '082 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. For example, and upon information and belief, LG offers for sale, sells, and imports the Accused Products within the U.S. to, for example, its distributors, customers, subsidiaries, importers, and/or consumers. Further, LG is vicariously liable for this infringing conduct of LG USA (under both the alter ego and agency theories) because, as an example and upon information and belief, LG and LG USA are essentially the same company, and LG has the right and ability to control LG USA's infringing acts and receives a direct financial benefit from LG USA's infringement.

**ANSWER:** Denied.

129. The Accused Products infringe the '082 patent including, at least, claim 1. The Accused Products include mobile phones and devices that have wireless charging capability, including, but not limited to, the LG G8. The Accused Products are electronic devices having communication capability. For example, the Accused Products have the ability to communicate with the cellular network.

**ANSWER:** Denied.

130. The Accused products comprise a housing having a generally rectangular shape in a plan view of the housing. For example, the LG G8 shown below has a rectangular shape:



**ANSWER:** Defendants admit that the LG G8 has a rectangular shape. Otherwise, Paragraph 130 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 130.

131. The Accused Products comprise a non-contact charging module included in the housing and including a wireless charging coil having a substantially planar shape and formed of a wound electrical wire. For example, the LG G8 includes such a coil:

Wireless charging coil has a substantially planar shape



**ANSWER:** Defendants admit that the LG G8 includes a wireless charging coil. Otherwise, Paragraph 131 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 131.

132. The non-contact charging module of the Accused Products further includes a sheet that overlaps with the wireless charging coil in the plan view of the housing. For example, the sheet is located opposite the wireless charging coil.

Magnetic sheet



**ANSWER:** Paragraph 132 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 132.

133. The Accused Products comprise a display arranged closer to the sheet than to the wireless charging coil of the non-contact charging module. The Accused Products, such as the LG G8 are configured such that the sheet is located between the wireless charging coil and the display. Accordingly, the display is closer to the sheet than to the wireless charging coil.

**ANSWER:** Paragraph 133 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 133.

134. The Accused Products comprise a battery included in the housing and having a substantially planar shape that overlaps with the wireless charging coil of the non-contact charging module in the plan view of the housing, the battery being configured to receive power from the wireless charging coil of the non-contact charging module. For example, the battery in the LG G8 shown below is included in the housing and has a substantially planar shape that overlaps with the wireless charging

coil of the non-contact charging module in the plan view of the housing. The battery in each of the Accused Products is configured to receive power from wireless charging.



**ANSWER:** Defendants admit that the LG G8 includes a battery. Otherwise, Paragraph 134 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 134.

135. The Accused Products comprise a circuit board included in the housing and arranged to not overlap with the battery in the plan view of the housing. For example, the LG G8 shown below has the circuit board and battery arranged to not overlap:



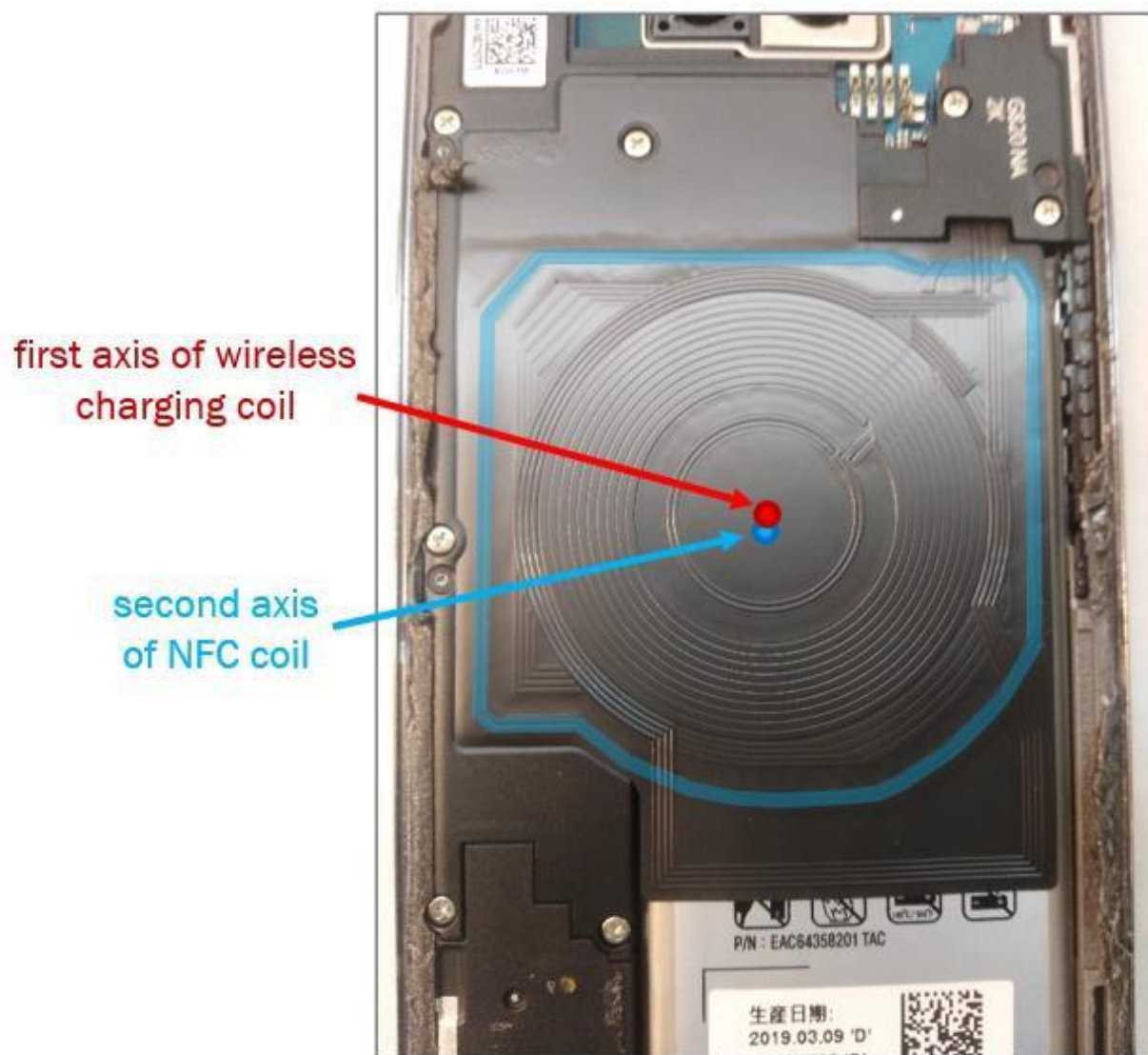
**ANSWER:** Defendants admit that the LG G8 includes a circuit board and a battery. Otherwise, Paragraph 135 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 135.

136. The Accused Products comprise a Near Field Communication (NFC) antenna included in the housing and including an NFC coil formed of a wound electrical wire. For example, the LG G8 shown below includes an NFC antenna, which includes a wound electrical wire NFC coil:



**ANSWER:** Defendants admit that the LG G8 includes an NFC antenna. Otherwise, Paragraph 136 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 136.

137. The Accused Products are configured such that a first axis of the wireless charging coil is different from a second axis of the NFC coil. For example, the z-axis around which the wireless charging coil is wound is different from the z-axis around which the NFC coil is wound for the LG G8, as shown below:



**ANSWER:** Paragraph 137 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 137.

138. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 138 and therefore deny them.

139. The technology discussion above and the exemplary Accused Products provide context

for Plaintiff's infringement allegations.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 139 and therefore deny them.

140. At a minimum, LG has known of the '082 patent at least as early as the service date of the original complaint in this matter on April 16, 2020. Further, on information and belief, LG has known of the '082 patent at least as early as the filing date of the original complaint. In addition, LG has known about the '082 patent since at least April 14, 2020, when LG received a letter providing notice of its infringement. Further, on information and belief, LG's conduct before the United States Patent and Trademark Office ("USPTO") and foreign offices, suggest that it may have been aware of the '082 patent prior to receiving the letter. For example, in prosecuting U.S. Patent No. 9,553,476, LG disclosed the family associated with the '082 patent to the USPTO.

**ANSWER:** Defendants admit that they became aware of the '082 patent at least as early as April 14, 2020. Defendants otherwise deny the allegations in Paragraph 140.

141. Upon information and belief, since at least the above-mentioned date when LG was on notice of its infringement, LG has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '082 patent to directly infringe one or more claims of the '082 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, LG does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '082 patent. Upon information and belief, LG intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, inter alia, creating advertisements that promote the infringing use of the Accused Products,

creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless charging features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. *See, e.g.*, Global Network, LG ELECTRONICS INC., <http://www.lgnewsroom.com/global-network/north-america/> (last visited Mar. 3, 2020) (stating that “[t]he company has been very active in the [North American] region as an exemplary model of globalization with success in local plants, strategic alliances, and mergers and acquisitions” and listing LG’s U.S.-based subsidiaries).

**ANSWER:** Denied.

142. Upon information and belief, despite having knowledge of the ’082 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’082 patent, LG has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. LG’s infringing activities relative to the ’082 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

**ANSWER:** Denied.

143. SPV has been damaged as a result of LG’s infringing conduct described in this Count. LG is, thus, liable to SPV in an amount that adequately compensates SPV for LG’s infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**ANSWER:** Denied.

**COUNT VII**

(INFRINGEMENT OF U.S. PATENT NO. 9,954,396)

144. Plaintiff incorporates paragraphs 1 through 143 herein by reference.

**ANSWER:** Defendants repeat and reallege their answers to Paragraphs 1 through 143 of the Amended Complaint.

145. SPV is the assignee of the '396 patent, entitled "Electronic Device Including Non-Contact Charging Module," with ownership of all substantial rights in the '396 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

**ANSWER:** Defendants admit that U.S. Patent No. 9,954,396 ("the '396 patent") is titled "Electronic Device Including Non-Contact Charging Module." Defendants lack knowledge or information sufficient to form a belief as to the truth of the remaining allegations set forth in Paragraph 145 and therefore deny them.

146. The '396 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '396 patent issued from U.S. Patent Application No. 15/051,408.

**ANSWER:** Defendants admit that the '396 patent issued from U.S. Patent Application No. 15/051,408. Defendants otherwise deny the allegations of Paragraph 146.

147. LG has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '396 patent in this judicial district and elsewhere in Texas and the United States.

**ANSWER:** Denied.

148. Upon information and belief, LG designs, develops, manufactures, assembles and markets mobile phones and devices configured to connect to wireless cellular networks. *See Cell Phones*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones> (last visited Mar. 3, 2020)

(scroll to “Shop by Carrier/Network” heading). LG’s mobile phones are further configured with customer-desired features such as advanced image processing, wireless charging, AI engines, and multimedia capabilities, including audio playback. *See, e.g., LG V40 ThinQ™ Verizon Wireless*, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones/lg-LM-V405UAB-verizon-v40> (last visited Mar. 5, 2020) (describing the features of the LG V40 Thin Q).

**ANSWER:** Defendants admit that they design, develop, manufacture, assemble, and/or market mobile phones and devices configured to connect to wireless cellular networks. Defendants admit that certain of their mobile phones and devices include features such as advanced image processing, wireless charging AI engines, and/or multimedia capabilities, including audio playback. In addition, the document cited in Paragraph 148 speaks for itself. To the extent the allegations of Paragraph 148 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations of Paragraph 148.

149. LG directly infringes the ’396 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the ’396 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, LG sells and makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the ’396 patent. *See, e.g., Lake Cherokee Hard Drive Techs., LLC v. Marvell Semiconductor, Inc.*, 964 F. Supp.

2d 653, 658 (E.D. Tex. 2013). Furthermore, LG directly infringes the '396 patent through its direct involvement in the activities of its subsidiaries, including LG USA, including by selling and offering for sale the Accused Products directly to LG USA and importing the Accused Products into the United States for LG USA. Upon information and belief, LG USA conducts activities that constitute direct infringement of the '396 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. For example, and upon information and belief, LG offers for sale, sells, and imports the Accused Products within the U.S. to, for example, its distributors, customers, subsidiaries, importers, and/or consumers. Further, LG is vicariously liable for this infringing conduct of LG USA (under both the alter ego and agency theories) because, as an example and upon information and belief, LG and LG USA are essentially the same company, and LG has the right and ability to control LG USA's infringing acts and receives a direct financial benefit from LG USA's infringement.

**ANSWER:** Denied.

150. The Accused Products infringe the '396 patent including, at least, claim 1. The Accused Products include mobile phones and devices that have wireless charging capability, including, but not limited to, the LG G8. The Accused Products are electronic devices having a communication capability. For example, the Accused Products have the ability to communicate with the cellular network.

**ANSWER:** Denied.

151. The Accused products comprise a housing. For example, the LG G8 shown below has a housing:



**ANSWER:** Paragraph 151 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 151.

152. The Accused Products comprise a non-contact charging module housed in the housing and configured to receive electric power through electromagnetic induction. For example, the LG G8 shown below includes a non-contact charging module that is configured to support wireless charging:



BATTERY	
Capacity:	3500 mAh
Type:	Li - Polymer, Not user replaceable
Charging:	Qualcomm Quick Charge 3.0, USB Power Delivery, <u>Qi wireless charging</u>

[https://www.phonearena.com/phones/LG-G8-ThinQ\\_id11095](https://www.phonearena.com/phones/LG-G8-ThinQ_id11095)

### 3 How Qi wireless power transfer works

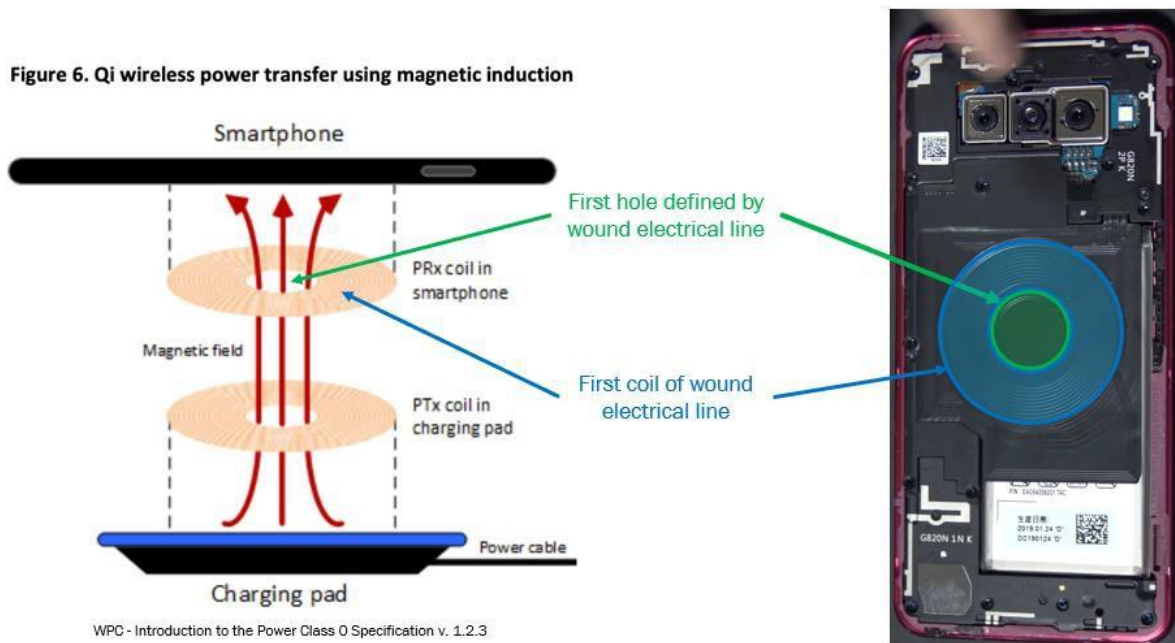
The Qi wireless power transfer system uses magnetic induction to transfer power to a power receiver (PRx) subsystem contained within the mobile device when it is placed on top of a power transmitter (PTx).

WPC - Introduction to the Power Class 0 Specification v. 1.2.3

**ANSWER:** Paragraph 152 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 152.

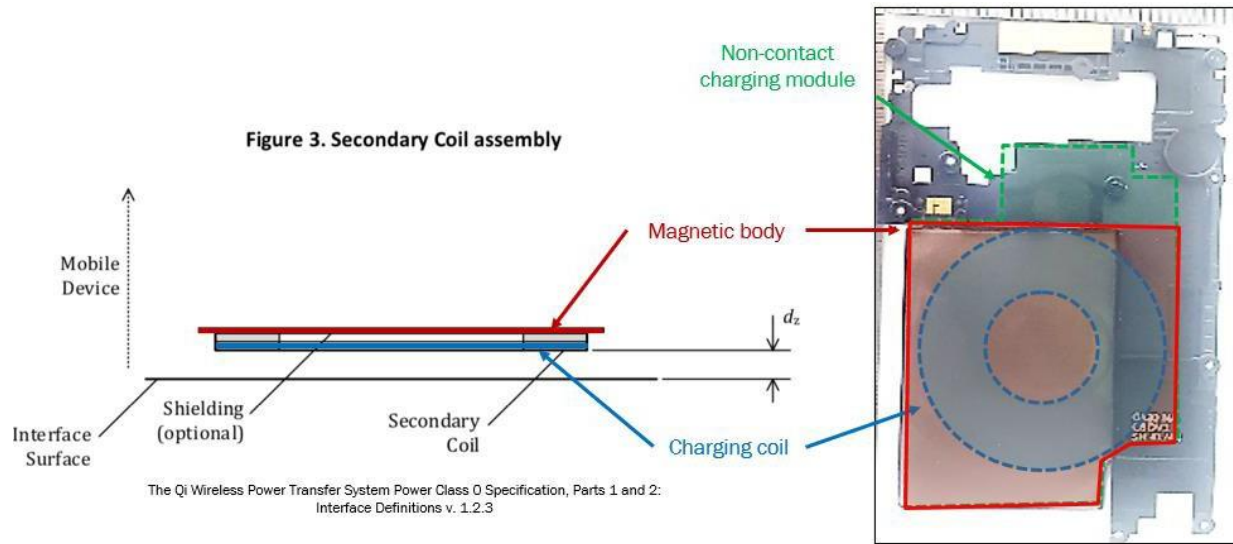
153. The non-contact charging module in the Accused Products includes a first coil comprised of an electrical line wound to define a first hole. For example, the LG G8 shown below

includes a non-contact charging module with a first coil comprised of an electrical line wound to define a first hole:



**ANSWER:** Paragraph 153 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 153.

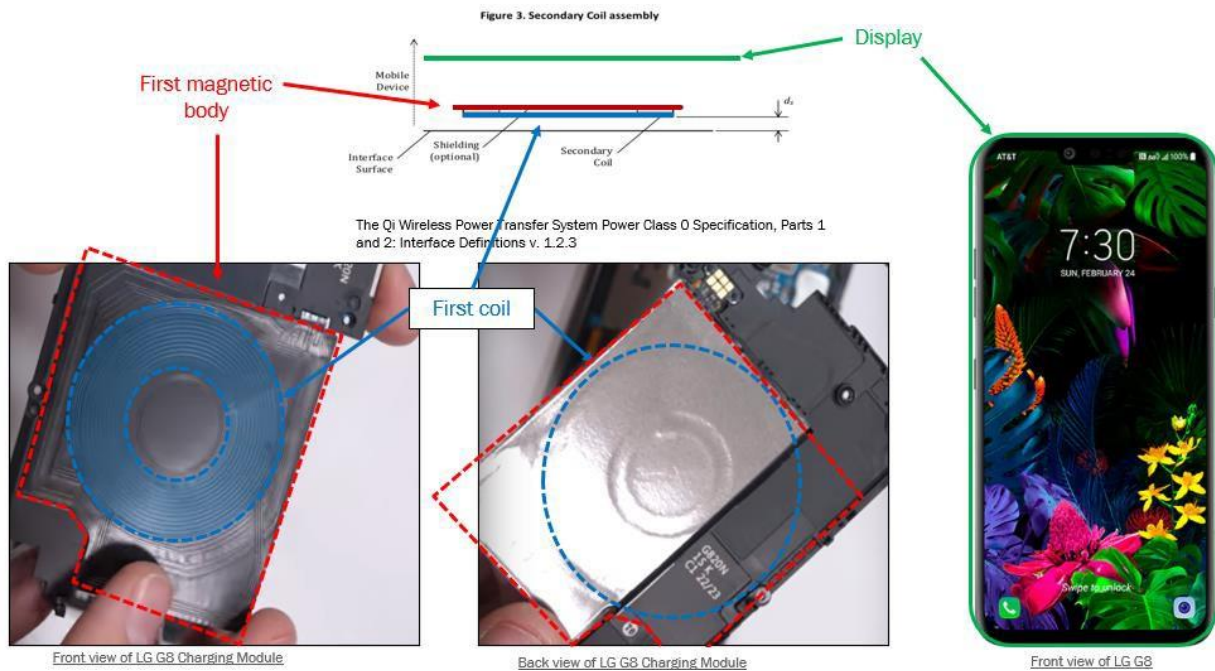
154. The non-contact charging module in the Accused Products includes a first magnetic body opposing the first coil. For example, the LG G8 shown below includes a non-contact charging module with a magnetic body opposing the first coil:



**ANSWER:** Paragraph 154 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 154.

155. The Accused Products comprise a display placed such that the first magnetic body is interposed between the display and the first coil. For example, the LG G8 shown below is configured such that the magnetic body sits between the display and the first coil:

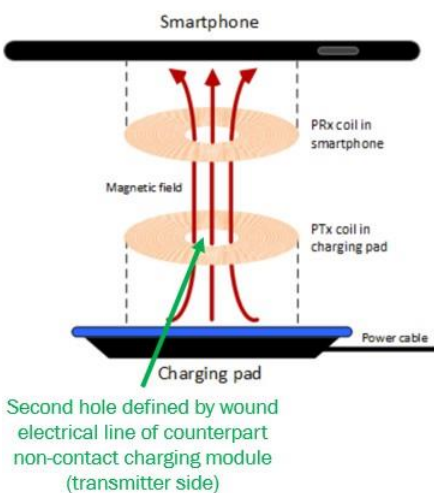


**ANSWER:** Paragraph 155 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 155.

156. The non-contact charging module in the Accused Products is structured to align with a counterpart non-contact charging module including a second hole. For example, non-contact charging module of the LG G8 is structured to align with a counterpart non-contact charging module, e.g., a Qi power transmitter, which includes a second hole when designed according to the Qi specification.

Figure 6. Qi wireless power transfer using magnetic induction



#### 4.3 Charging area

The power transfer system in the Power Class 0 specification is based on a single coil in the power transmitter that has an outer diameter of 50 mm (2 in), and a coil in the power receiver that has an outer diameter of 40 mm (1.6 in). Actual power transmitter and power receiver implementations may deviate from these dimensions, as long as they are able to pass all relevant Qi compliance tests.

In a typical use case, a mobile device is positioned on the top surface of a charger with the power transmitter coil and the power receiver coil aligned. Ideally, the coils should be perfectly aligned for maximum power transfer, but misaligning the coils by several millimeters (about ¼ inch) should not be a problem.

#### 4.4 Coupling requirements

Coupling occurs when current changes in one coil creates a voltage in the other coil via magnetic induction. Coupling is highest—with the most efficient power transfer—when:

- the PTx and PRx use exactly the same coil
- the PTx and PRx are perfectly aligned
- the distance between the coils is small (less than the diameter of the coils)
- the coils are externally shielded by ferrite

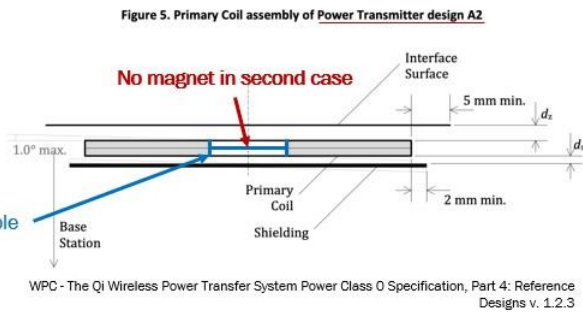
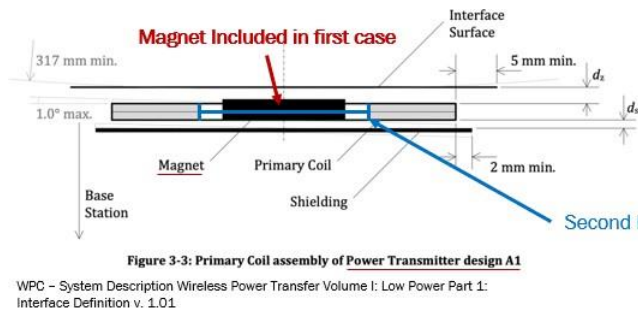
Conditions that decrease coupling (and power transfer efficiency) include different power transmitter/power receiver coil sizes and shapes, coil misalignment, excessive distance between coils, and the presence of foreign objects on the power transmitter.

WPC - Introduction to the Power Class 0 Specification v. 1.2.3

**ANSWER:** Paragraph 156 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 156.

157. The second hole of the counterpart non-contact charging module includes a magnet in a first case and the second hole does not include the magnet in a second case, and the non-contact charging module of the Accused Products, in operation, aligns with the counterpart non-contact charging module either in the first case or in the second case. For example, the Qi specification defines multiple power transmitter designs intended to transfer power to Qi receivers, such as the non-contact charging module in the LG G8:



**NOTE** Power Receivers that use thin magnetic Shielding have been found to experience reduced performance on Power Transmitters that contain a permanent magnet in or near the Active Area. Such Power Receivers may exhibit, for example, less positioning freedom and/or a longer charging time. For this reason, Power Transmitter designs A1, A5, and A9 have been deprecated as of version 1.2 of the Qi Power Class 0 Specification.

The remaining Power Transmitter designs provided in this part 4 of the Qi Power Class 0 Specification do not use a permanent magnet. Product implementations based on these designs that include a permanent magnet in or near the Active Area are not compliant with this specification.

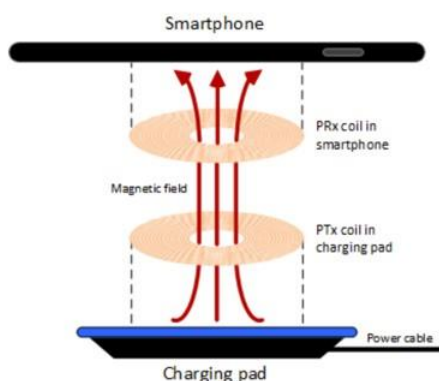
WPC - The Qi Wireless Power Transfer System Power Class 0 Specification, Part 4: Reference Designs v. 1.2.3

**ANSWER:** Paragraph 157 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 157.

158. The non-contact charging module in the Accused Products in operation, aligns with the counterpart non-contact charging module either in the first case or in the second case. For example, regardless of whether the power transmitter has a magnet, a Qi non-contact charging module of a receiver, such as the one in the LG G8, will align with a counterpart non-contact charging module of

Figure 6. Qi wireless power transfer using magnetic induction



### 4.3 Charging area

The power transfer system in the Power Class 0 specification is based on a single coil in the power transmitter that has an outer diameter of 50 mm (2 in), and a coil in the power receiver that has an outer diameter of 40 mm (1.6 in). Actual power transmitter and power receiver implementations may deviate from these dimensions, as long as they are able to pass all relevant Qi compliance tests.

In a typical use case, a mobile device is positioned on the top surface of a charger with the power transmitter coil and the power receiver coil aligned. Ideally, the coils should be perfectly aligned for maximum power transfer, but misaligning the coils by several millimeters mm (about ¼ inch) should not be a problem.

### 4.4 Coupling requirements

Coupling occurs when current changes in one coil creates a voltage in the other coil via magnetic induction. Coupling is highest—with the most efficient power transfer—when:

- the PTx and PRx use exactly the same coil
- the PTx and PRx are perfectly aligned
- the distance between the coils is small (less than the diameter of the coils)
- the coils are externally shielded by ferrite

Conditions that decrease coupling (and power transfer efficiency) include different power transmitter/power receiver coil sizes and shapes, coil misalignment, excessive distance between coils, and the presence of foreign objects on the power transmitter.

WPC - Introduction to the Power Class 0 Specification v. 1.2.3

a transmitter during operation.

**ANSWER:** Paragraph 158 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 158.

159. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 159 and therefore deny them.

160. At a minimum, LG has known of the '396 patent at least as early as the filing date of this amended complaint. Further, on information and belief, LG's conduct before the United States Patent and Trademark Office ("USPTO") and foreign offices, suggest that it may have been aware of the '396 patent prior to receiving the letter. For example, in prosecuting U.S. Patent No. 9,553,476, LG disclosed the family associated with the '396 patent to the USPTO. In addition, LG has known about the '396 patent since at least May 7, 2020, when LG received a letter providing notice of its infringement.

**ANSWER:** Defendants admit that they became aware of the '396 patent at least as early as May 7, 2020. Defendants otherwise deny the allegations in Paragraph 160.

161. Upon information and belief, since at least the above-mentioned date when LG was on notice of its infringement, LG has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '396 patent to directly infringe one or more claims of the '396 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, LG does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the

'396 patent. Upon information and belief, LG intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless charging features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. *See, e.g., Global Network*, LG ELECTRONICS INC., <http://www.lgnewsroom.com/global-network/north-america/> (last visited Mar. 3, 2020) (stating that “[t]he company has been very active in the [North American] region as an exemplary model of globalization with success in local plants, strategic alliances, and mergers and acquisitions” and listing LG’s U.S.-based subsidiaries).

**ANSWER:** Denied.

162. Upon information and belief, despite having knowledge of the '396 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the '396 patent, LG has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. LG’s infringing activities relative to the '396 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

**ANSWER:** Denied.

163. SPV has been damaged as a result of LG’s infringing conduct described in this Count. LG is, thus, liable to SPV in an amount that adequately compensates SPV for LG’s infringements,

which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**ANSWER:** Denied.

**COUNT VIII**

(INFRINGEMENT OF U.S. PATENT NO. 10,230,272)

164. Plaintiff incorporates paragraphs 1 through 163 herein by reference.

**ANSWER:** Defendants repeat and reallege their answers to Paragraphs 1 through 163 of the Amended Complaint.

165. SPV is the assignee of the '272 patent, entitled "Mobile Terminal Including Wireless Charging Coil and Magnetic Sheet Having Inwardly Receding Portion," with ownership of all substantial rights in the '272 patent, including the right to exclude others and to enforce, sue, and recover damages for past and future infringements.

**ANSWER:** Defendants admit that U.S. Patent No. 10,230,272 ("the '272 patent") is titled "Mobile Terminal Including Wireless Charging Coil and Magnetic Sheet Having Inwardly Receding Portion." Defendants lack knowledge or information sufficient to form a belief as to the truth of the remaining allegations set forth in Paragraph 165 and therefore deny them.

166. The '272 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The '272 patent issued from U.S. Patent Application No. 15/882,829.

**ANSWER:** Defendants admit that the '272 patent issued from U.S. Patent Application No. 15/882,829. Defendants otherwise deny the allegations of Paragraph 166.

167. LG has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the '272 patent in this judicial district and elsewhere in Texas and the United States.

**ANSWER:** Denied.

168. Upon information and belief, LG designs, develops, manufactures, assembles and markets mobile phones and devices configured to connect to wireless cellular networks. *See* Cell Phones, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones> (last visited Mar. 3, 2020) (scroll to “Shop by Carrier/Network” heading). LG’s mobile phones are further configured with customer-desired features such as advanced image processing, wireless charging, AI engines, and multimedia capabilities, including audio playback. *See, e.g.*, LG V40 ThinQ™ Verizon Wireless, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones/lg-LM-V405UAB-verizon-v40> (last visited Mar. 5, 2020) (describing the features of the LG V40 Thin Q).

**ANSWER:** Defendants admit that they design, develop, manufacture, assemble, and/or market mobile phones and devices configured to connect to wireless cellular networks. Defendants admit that certain of their mobile phones and devices include features such as advanced image processing, wireless charging AI engines, and/or multimedia capabilities, including audio playback. In addition, the document cited in Paragraph 168 speaks for itself. To the extent the allegations of Paragraph 168 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations of Paragraph 168.

169. LG directly infringes the ’272 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the ’272 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, LG sells and makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries

in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '272 patent. *See, e.g., Lake Cherokee Hard Drive Techs., LLC v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, LG directly infringes the '272 patent through its direct involvement in the activities of its subsidiaries, including LG USA, including by selling and offering for sale the Accused Products directly to LG USA and importing the Accused Products into the United States for LG USA. Upon information and belief, LG USA conducts activities that constitute direct infringement of the '272 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. For example, and upon information and belief, LG offers for sale, sells, and imports the Accused Products within the U.S. to, for example, its distributors, customers, subsidiaries, importers, and/or consumers. Further, LG is vicariously liable for this infringing conduct of LG USA (under both the alter ego and agency theories) because, as an example and upon information and belief, LG and LG USA are essentially the same company, and LG has the right and ability to control LG USA's infringing acts and receives a direct financial benefit from LG USA's infringement.

**ANSWER:** Denied.

170. The Accused Products infringe the '272 patent including, at least, claim 1. The Accused Products include mobile phones and devices that have wireless charging capability, including, but not limited to, the LG G8. The Accused Products are mobile terminals. For example, the LG G8 is a cellular phone.

**ANSWER:** Denied.

171. The Accused products comprise a housing having a rectangular shape in a plan view of

the housing defined by two short sides along a lateral direction and two long sides along a longitudinal direction. For example, the LG G8 shown below includes a housing defined by two short sides along a lateral direction and two long sides along a longitudinal direction:



**ANSWER:** Paragraph 171 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 171.

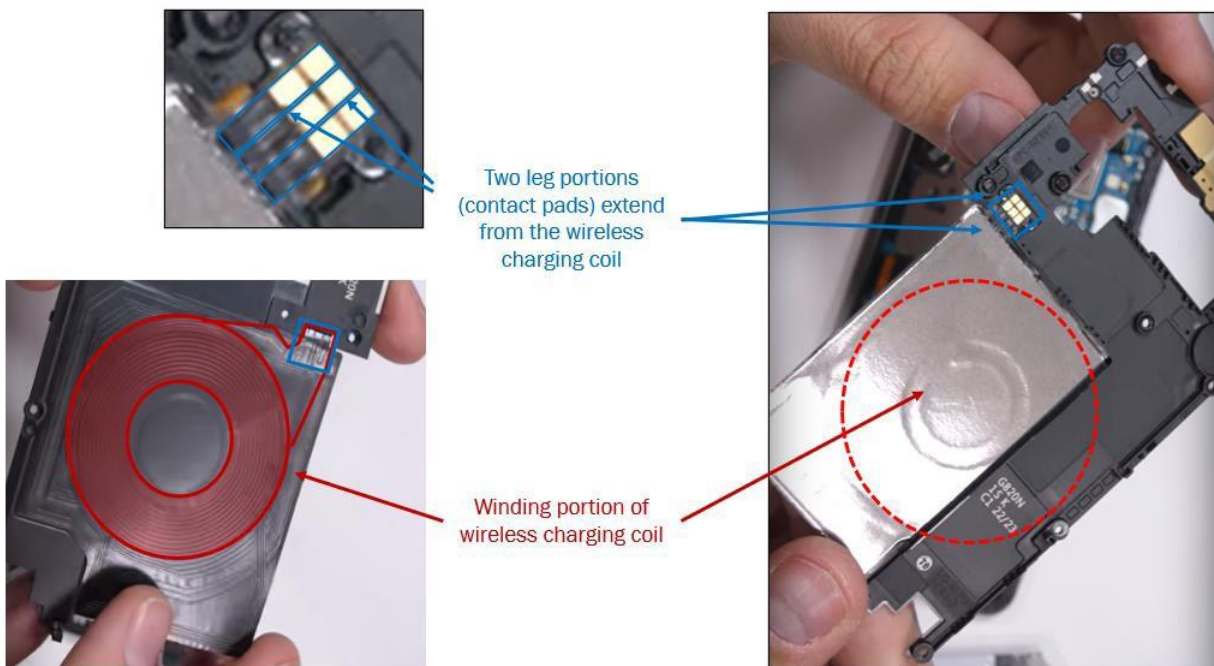
172. The Accused Products comprise a camera, a battery, and a circuit board included in the

housing. For example, the LG G8 includes a camera, a battery, and a circuit board included in the housing:



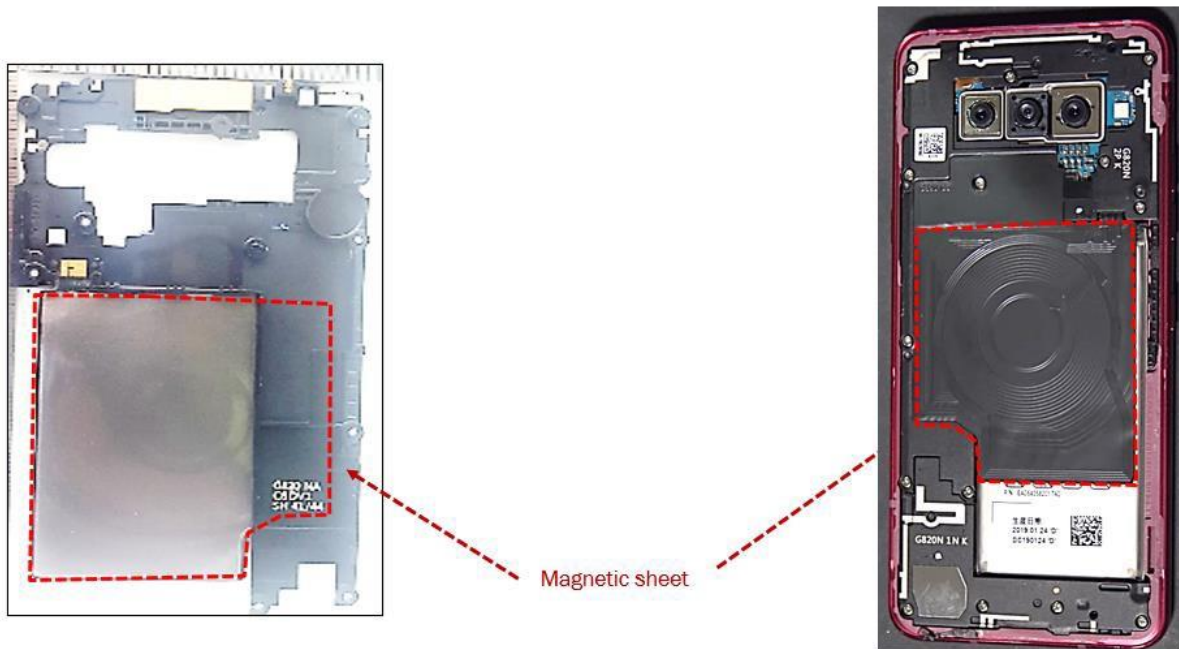
**ANSWER:** Paragraph 172 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 172.

173. The Accused Products comprise a wireless charging coil arranged in the housing and including a winding portion and two leg portions. For example, the LG G8 contains the wireless charging coil shown below:



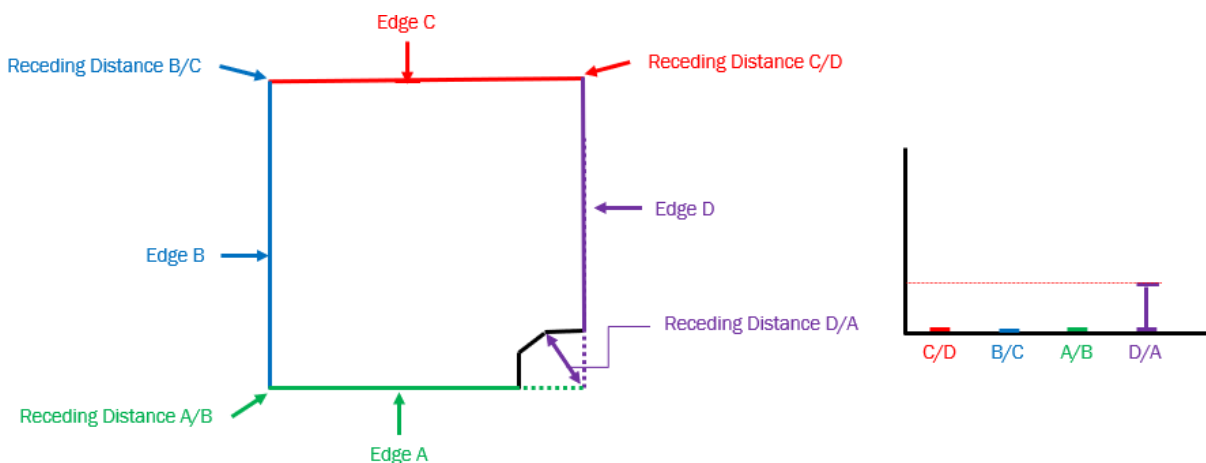
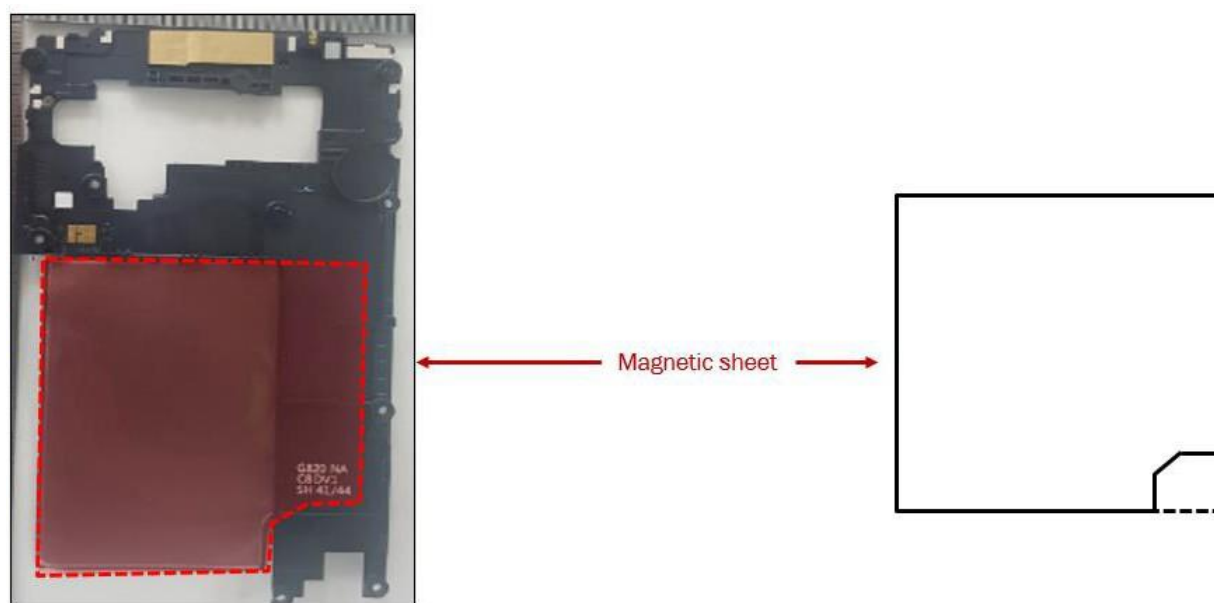
**ANSWER:** Defendants admit that the LG G8 includes a wireless charging coil. Otherwise, Paragraph 173 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 173.

174. The Accused Products comprise a magnetic sheet arranged in the housing. For example, the LG G8 shown below includes the following magnetic sheet:



**ANSWER:** Paragraph 174 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 174.

175. Within the Accused Products, the magnetic sheet has a rectangular shape including four edges and four corner portions, each pair of adjacent edges forms a virtual corner, each corner portion is receded inwardly from its corresponding virtual corner by a receding distance, and one of four receding distances is greater than other three of the four receding distances. For example, the LG G8 contains the magnetic sheet shown below, in which one of the four receding distances is greater than the other three of four receding distances (e.g., receding distance D/A is greater than the other receding distances):



**ANSWER:** Paragraph 175 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 175.

176. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 176 and therefore deny them.

177. At a minimum, LG has known of the '272 patent at least as early as the filing date of this amended complaint. In addition, LG has known about the '272 patent since at least May 7, 2020, when LG received a letter providing notice of its infringement.

**ANSWER:** Defendants admit that they became aware of the '272 patent at least as early as May 7, 2020. Defendants otherwise deny the allegations in Paragraph 177.

178. Upon information and belief, since at least the above-mentioned date when LG was on notice of its infringement, LG has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '272 patent to directly infringe one or more claims of the '272 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, LG does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '272 patent. Upon information and belief, LG intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless charging features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. *See, e.g., Global Network, LG ELECTRONICS INC.*, <http://www.lgnewsroom.com/global-network/north-america/> (last visited Mar. 3, 2020) (stating that “[t]he company has been very active in the [North American] region as an exemplary model of globalization with success in local plants,

strategic alliances, and mergers and acquisitions” and listing LG’s U.S.-based subsidiaries).

**ANSWER:** Denied.

179. Upon information and belief, despite having knowledge of the ’272 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’272 patent, LG has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. LG’s infringing activities relative to the ’272 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

**ANSWER:** Denied.

180. SPV has been damaged as a result of LG’s infringing conduct described in this Count. LG is, thus, liable to SPV in an amount that adequately compensates SPV for LG’s infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**ANSWER:** Denied.

### **COUNT IX**

(INFRINGEMENT OF U.S. PATENT NO. 10,574,090)

181. Plaintiff incorporates paragraphs 1 through 180 herein by reference.

**ANSWER:** Defendants repeat and reallege their answers to Paragraphs 1 through 180 of the Amended Complaint.

182. SPV is the assignee of the ’090 patent, entitled “Mobile Terminal Including Wireless Charging Coil and Magnetic Sheet Having Inwardly Receding Portion,” with ownership of all substantial rights in the ’090 patent, including the right to exclude others and to enforce, sue, and

recover damages for past and future infringements.

**ANSWER:** Defendants admit that U.S. Patent No. 10,574,090 (“the ’090 patent”) is titled “Mobile Terminal Including Wireless Charging Coil and Magnetic Sheet Having Inwardly Receding Portion.” Defendants also admit that the assignee identified on the face of the ’090 patent is “Sovereign Peak Ventures, LLC.” Defendants lack knowledge or information sufficient to form a belief as to the truth of the remaining allegations set forth in Paragraph 182 and therefore deny them.

183. The ’090 patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code. The ’090 patent issued from U.S. Patent Application No. 16/359,590.

**ANSWER:** Defendants admit that the ’090 patent issued from U.S. Patent Application No. 16/359,590. Defendants otherwise deny the allegations of Paragraph 183.

184. LG has and continues to directly and/or indirectly infringe (by inducing infringement) one or more claims of the ’090 patent in this judicial district and elsewhere in Texas and the United States.

**ANSWER:** Denied.

185. Upon information and belief, LG designs, develops, manufactures, assembles and markets mobile phones and devices configured to connect to wireless cellular networks. *See* Cell Phones, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones> (last visited Mar. 3, 2020) (scroll to “Shop by Carrier/Network” heading). LG’s mobile phones are further configured with customer-desired features such as advanced image processing, wireless charging, AI engines, and multimedia capabilities, including audio playback. *See, e.g.*, LG V40 ThinQ™ Verizon Wireless, LG ELECTRONICS INC., <https://www.lg.com/us/cell-phones/lg-LM-V405UAB-verizon-v40> (last visited Mar. 5, 2020) (describing the features of the LG V40 Thin Q).

**ANSWER:** Defendants admit that they design, develop, manufacture, assemble, and/or market

mobile phones and devices configured to connect to wireless cellular networks. Defendants admit that certain of their mobile phones and devices include features such as advanced image processing, wireless charging AI engines, and/or multimedia capabilities, including audio playback. In addition, the document cited in Paragraph 185 speaks for itself. To the extent the allegations of Paragraph 185 seek to paraphrase or characterize the contents of the cited document, Defendants deny the allegations to the extent they are inconsistent with that document. Defendants otherwise deny the allegations of Paragraph 185.

186. LG directly infringes the '090 patent via 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products, their components and processes, and/or products containing the same that incorporate the fundamental technologies covered by the '090 patent to, for example, its alter egos, agents, intermediaries, distributors, importers, customers, subsidiaries, and/or consumers. Furthermore, upon information and belief, LG sells and makes the Accused Products outside of the United States, delivers those products to its customers, distributors, and/or subsidiaries in the United States, or in the case that it delivers the Accused Products outside of the United States it does so intending and/or knowing that those products are destined for the United States and/or designing those products for sale in the United States, thereby directly infringing the '090 patent. *See, e.g., Lake Cherokee Hard Drive Techs., LLC v. Marvell Semiconductor, Inc.*, 964 F. Supp. 2d 653, 658 (E.D. Tex. 2013). Furthermore, LG directly infringes the '090 patent through its direct involvement in the activities of its subsidiaries, including LG USA, including by selling and offering for sale the Accused Products directly to LG USA and importing the Accused Products into the United States for LG USA. Upon information and belief, LG USA conducts activities that constitute direct infringement of the '090 patent under 35 U.S.C. § 271(a) by making, offering for sale, selling, and/or importing those Accused Products. For example, and upon information and belief, LG offers for sale,

sells, and imports the Accused Products within the U.S. to, for example, its distributors, customers, subsidiaries, importers, and/or consumers. Further, LG is vicariously liable for this infringing conduct of LG USA (under both the alter ego and agency theories) because, as an example and upon information and belief, LG and LG USA are essentially the same company, and LG has the right and ability to control LG USA's infringing acts and receives a direct financial benefit from LG USA's infringement.

**ANSWER:** Denied.

187. The Accused Products infringe the '090 patent including, at least, claim 1. The Accused Products include mobile phones and devices that have wireless charging capability, including, but not limited to, the LG G8. The Accused Products are mobile terminals. For example, the LG G8 is a cellular phone.

**ANSWER:** Denied.

188. The Accused products comprise a housing having a rectangular shape in a plan view of the housing defined by two short sides along a lateral direction and two long sides along a longitudinal direction. For example, the LG G8 shown below includes a housing defined by two short sides along a lateral direction and two long sides along a longitudinal direction:



**ANSWER:** Paragraph 188 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 188.

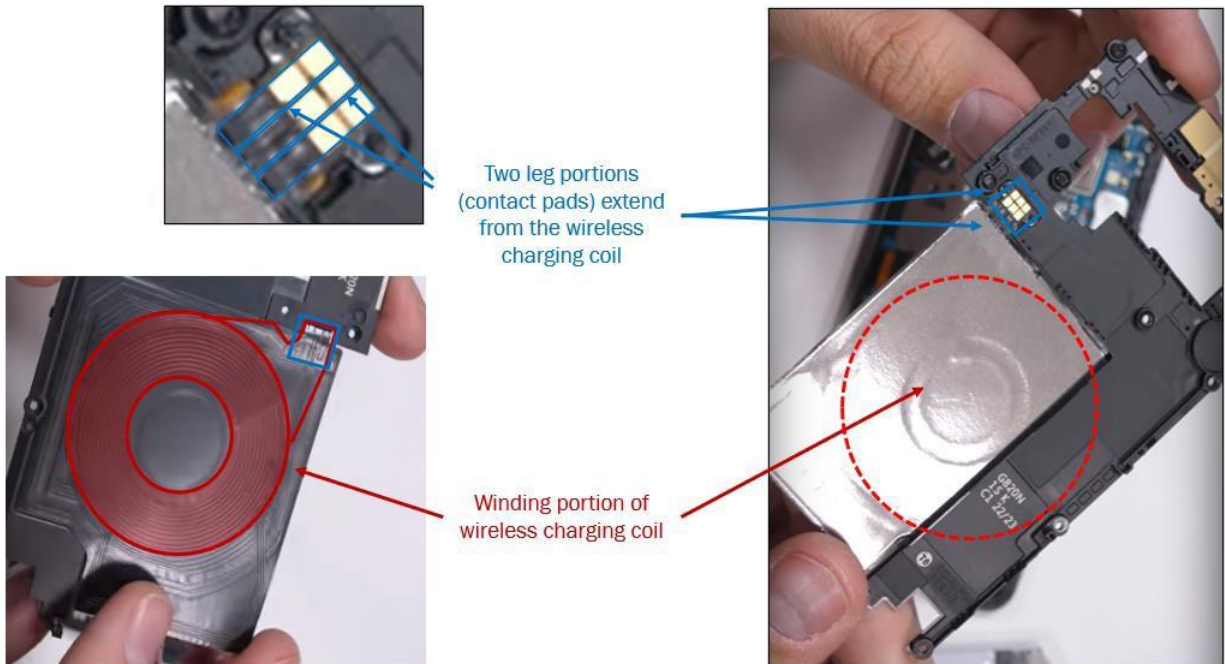
189. The Accused Products comprise a camera, a battery, and a circuit board included in the housing. For example, the LG G8 includes a camera, a battery, and a circuit board included in the housing:



**ANSWER:** Paragraph 189 contains legal conclusions to which no response is required.

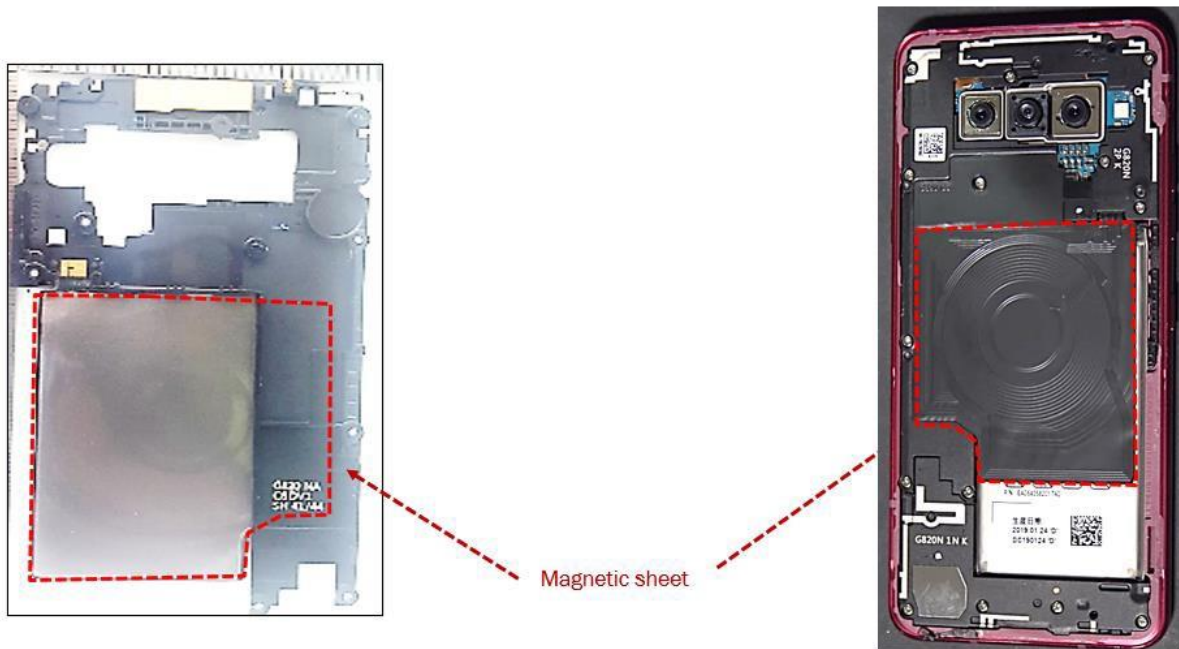
Defendants deny any remaining allegations in Paragraph 189.

190. The Accused Products comprise a wireless charging coil arranged in the housing and including a winding portion and two leg portions. For example, the LG G8 contains the wireless charging coil shown below:



**ANSWER:** Defendants admit that the LG G8 has a wireless charging coil. Otherwise, Paragraph 190 contains legal conclusions to which no response is required. Defendants deny any remaining allegations in Paragraph 190.

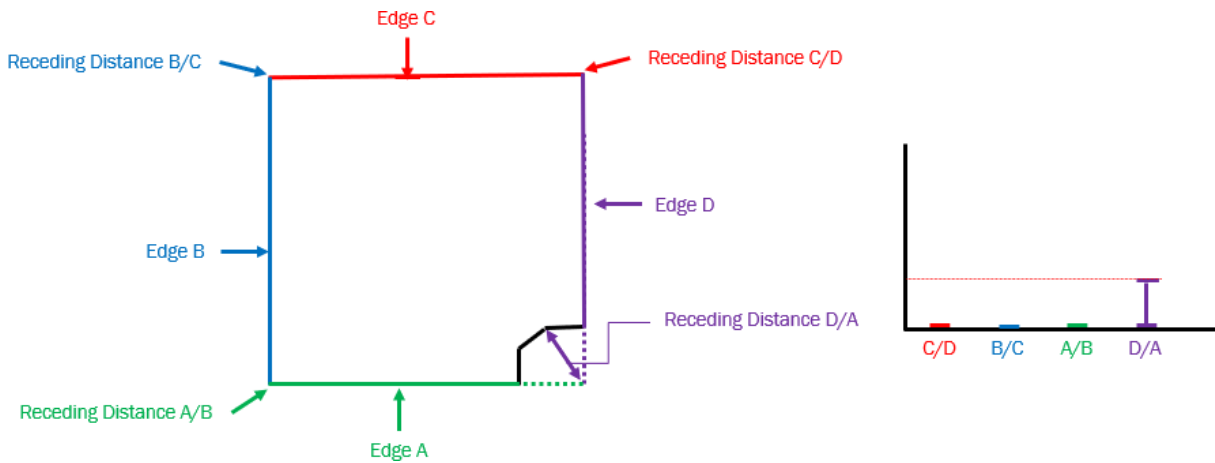
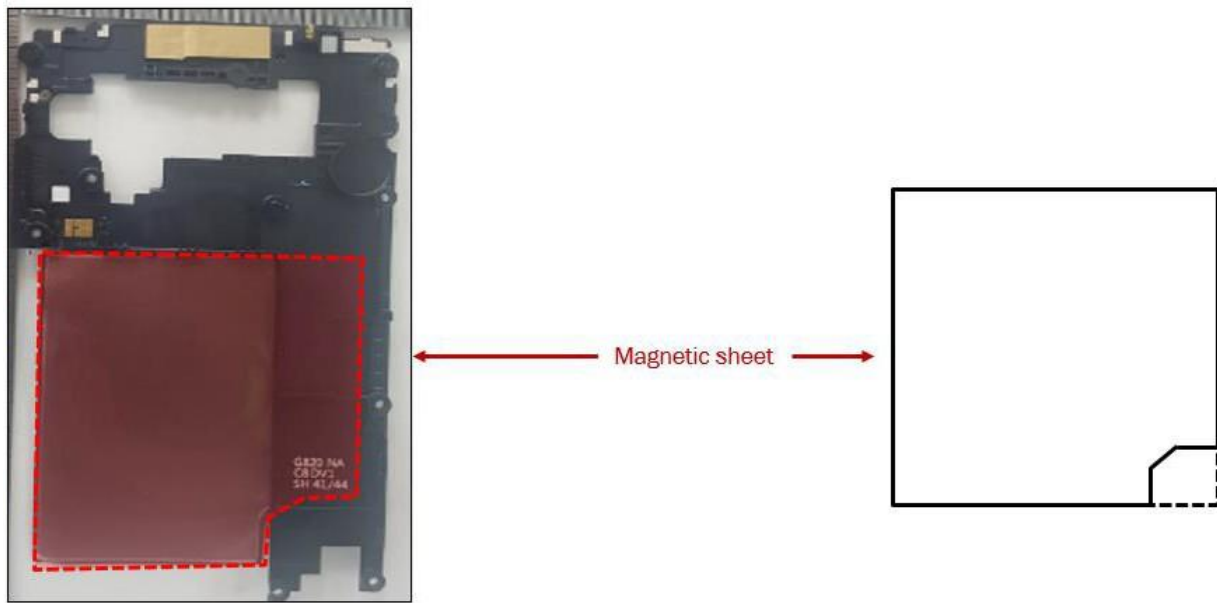
191. The Accused Products comprise a sheet arranged in the housing. For example, the LG G8 shown below includes the following sheet:



**ANSWER:** Paragraph 191 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 191.

192. Within the Accused Products, the sheet has a rectangular shape including four edges and four corner portions, each pair of adjacent edges forms a virtual corner, each corner portion is receded inwardly from its corresponding virtual corner by a receding distance, and one of four receding distances is greater than other three of the four receding distances. For example, the LG G8 contains the sheet shown below, in which one of the four receding distances is greater than the other three of four receding distances (e.g., receding distance D/A is greater than the other receding distances):



**ANSWER:** Paragraph 192 contains legal conclusions to which no response is required.

Defendants deny any remaining allegations in Paragraph 192.

193. The technology discussion above and the exemplary Accused Products provide context for Plaintiff's infringement allegations.

**ANSWER:** Defendants lack knowledge or information sufficient to form a belief as to the truth of the allegations set forth in Paragraph 193 and therefore deny them.

194. At a minimum, LG has known of the '090 patent at least as early as the filing date of this amended complaint. In addition, LG has known about the '090 patent since at least May 7, 2020, when LG received a letter providing notice of its infringement.

**ANSWER:** Defendants admit that they became aware of the '090 patent at least as early as May 7, 2020. Defendants otherwise deny the allegations in Paragraph 194.

195. Upon information and belief, since at least the above-mentioned date when LG was on notice of its infringement, LG has actively induced, under U.S.C. § 271(b), its distributors, customers, subsidiaries, importers, and/or consumers that import, purchase, or sell the Accused Products that include or are made using all of the limitations of one or more claims of the '090 patent to directly infringe one or more claims of the '090 patent by using, offering for sale, selling, and/or importing the Accused Products. Since at least the notice provided on the above-mentioned date, LG does so with knowledge, or with willful blindness of the fact, that the induced acts constitute infringement of the '090 patent. Upon information and belief, LG intends to cause, and has taken affirmative steps to induce infringement by its distributors, importers, customers, subsidiaries, and/or consumers by at least, *inter alia*, creating advertisements that promote the infringing use of the Accused Products, creating and/or maintaining established distribution channels for the Accused Products into and within the United States, manufacturing the Accused Products in conformity with U.S. laws and regulations, distributing or making available instructions or manuals for these products to purchasers and prospective buyers, testing wireless charging features in the Accused Products, and/or providing technical support, replacement parts, or services for these products to these purchasers in the United States. *See, e.g., Global Network*, LG ELECTRONICS INC., <http://www.lgnewsroom.com/global-network/north-america/> (last visited Mar. 3, 2020) (stating that “[t]he company has been very active in

the [North American] region as an exemplary model of globalization with success in local plants, strategic alliances, and mergers and acquisitions” and listing LG’s U.S.-based subsidiaries).

**ANSWER:** Denied.

196. Upon information and belief, despite having knowledge of the ’090 patent and knowledge that it is directly and/or indirectly infringing one or more claims of the ’090 patent, LG has nevertheless continued its infringing conduct and disregarded an objectively high likelihood of infringement. LG’s infringing activities relative to the ’090 patent have been, and continue to be, willful, wanton, malicious, in bad-faith, deliberate, consciously wrongful, flagrant, characteristic of a pirate, and an egregious case of misconduct beyond typical infringement such that Plaintiff is entitled under 35 U.S.C. § 284 to enhanced damages up to three times the amount found or assessed.

**ANSWER:** Denied.

197. SPV has been damaged as a result of LG’s infringing conduct described in this Count. LG is, thus, liable to SPV in an amount that adequately compensates SPV for LG’s infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**ANSWER:** Denied.

### **CONCLUSION**

198. Plaintiff SPV is entitled to recover from LG the damages sustained by Plaintiff as a result of LG’s wrongful acts, and willful infringement, in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court.

**ANSWER:** Denied.

199. Plaintiff has incurred and will incur attorneys’ fees, costs, and expenses in the prosecution of this action. The circumstances of this dispute may give rise to an exceptional case within

the meaning of 35 U.S.C. § 285, and Plaintiff is entitled to recover its reasonable and necessary attorneys' fees, costs, and expenses.

**ANSWER:** Denied.

### **PRAYER FOR RELIEF**

Defendants deny that Plaintiff is entitled to judgment or to any relief, legal or equitable, and specifically deny that Plaintiff is entitled to each item of relief requested in each of subparagraphs 1 through 6 of its Prayer for Relief in the Amended Complaint.

### **GENERAL DENIAL**

Except as explicitly admitted herein, Defendants deny each and every allegation contained in the Amended Complaint.

### **DEFENDANTS' DEFENSES**

Defendants allege and assert the following defenses in response to the allegations in Plaintiff's Amended Complaint, undertaking the burden of proof only as to those defenses deemed affirmative defenses by law.

#### **FIRST DEFENSE**

##### **(Failure to State a Claim Upon Which Relief Can Be Granted)**

1. Plaintiff's Complaint fails to state a claim upon which relief can be granted.

#### **SECOND DEFENSE**

##### **(Non-Infringement of the Asserted Patents)**

2. The manufacture, use, offer for sale, sale, or importation of the Accused Products has not, does not, and will not infringe, either literally or under the doctrine of equivalents, any valid and enforceable claim of the Asserted Patents, namely, the '481 patent, the '282 patent, the '735 patent, the '225 patent, the '069 patent, the '082 patent, the '396 patent, the '272 patent, and the '090 patent

whether directly, indirectly, contributorily, and/or by inducement.

3. For example, and without limitation, the Accused Products do not have all limitations of the claims of each Asserted Patent for which infringement is alleged. Additionally, an invalid claim cannot be infringed and all of the claims of the Asserted Patents are invalid.

### **THIRD DEFENSE**

#### **(Invalidity of the Asserted Patents)**

4. Each claim of each of the Asserted Patents is invalid for failure to satisfy one or more provisions of the patentability requirements specified in 35 U.S.C. §101 et seq., including without limitation §§ 101, 102, 103, and 112.

### **FOURTH DEFENSE**

#### **(Prosecution History Estoppel)**

5. Plaintiff's claims are barred by the doctrine of prosecution history estoppel based on statements, representations, and admissions made during the prosecution of the patent applications resulting in each of the Asserted Patents before the United States Patent and Trademark Office and/or during the prosecution of related patent applications.

### **FIFTH DEFENSE**

#### **(Limitation on Damages)**

6. Plaintiff's claims for relief are statutorily limited in whole or part by Title 35 of the United States Code, including without limitation 35 U.S.C. § 286 and/or 35 U.S.C. § 287.

7. For example, and without limitation, Plaintiff's claims for damages are limited under 35 U.S.C. § 287(b)(2). Specifically, Plaintiff is barred from recovering damages from Defendants prior to the date that Defendants had actual notice that they were allegedly infringing the claims of the Asserted Patents.

### **SIXTH DEFENSE**

#### **(Failure to Mitigate Damages)**

8. Plaintiff's claims of infringement are barred, in whole or in part, by Plaintiff's failure to mitigate damages, at least because Plaintiff unreasonably delayed in filing its claims in this action against Defendants, and unreasonably delayed in prosecuting the asserted claims against Defendants after Plaintiff and/or any predecessor-in-interest knew or should have known of the allegedly infringing actions.

### **SEVENTH DEFENSE**

#### **(No Willful Infringement of the Asserted Patents)**

9. Defendants have not willfully infringed the Asserted Patents.

### **EIGHTH DEFENSE**

#### **(No Attorney Fees)**

10. Plaintiff is not entitled to any attorney fees under 35 U.S.C. § 285.

### **NINTH DEFENSE**

#### **(Improper Venue)**

11. Pursuant to Fed. R. Civ. P. 12(b)(3), Defendants object to venue as improper in this judicial district under 28 U.S.C. § 1400(b), because LG USA is not incorporated in the State of Texas, and LG USA does not have a regular and established place of business in this judicial district.

### **OTHER DEFENSES**

12. Defendants' investigation is ongoing and Defendants have not yet obtained discovery from Plaintiff, the prosecuting attorney, or third parties. Defendants reserve the right to amend their Answer to include other defenses that Defendants may learn of during the course of their investigation and after obtaining discovery from Plaintiff, the prosecuting attorney, and third parties.

Dated: August 5, 2020

By: /s/ Vivian S. Kuo

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*Attorneys for Defendants LG Electronics Inc. and LG  
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**CERTIFICATE OF SERVICE**

I hereby certify that on the 5th day of August 2020, a true and correct copy of the foregoing was served on all parties in this action via the Court's CM/ECF system, pursuant to Local Rule CV 5(a)(3).

/s/ Vivian S. Kuo

Vivian S. Kuo